SERVICE MANUAL SD-35/SD-45II

4822 725 50791

marantz®

model SD-35/SD-45II

Stereo Cassette Deck

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.
Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

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Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. If you order by mail, fulfil MARANTZ order forms.

The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quanties required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

TECHNICAL ASSISTANCE

Should you require any other technical support, do not hesitate to contact the Technical Department of P.M.A.
MARANTZ INTERNATIONAL
Quality & Service Dept.
80, Rue des Deux Gares,
B-1070 Brussels
Belgium
Phone: 02/525.70.22 or 525.70.23
Telefax: 02/525.6160
Telex: 23550 OR
61511 (PHEMB) routing: BELDMZT

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

AUSTRALIA
MARANTZ AUSTRALIA
PTY., Ltd.
19 Chard Road
Brookvale, NSW 2100
Australia
Telex: 24121

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

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MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Max-Planck-Strasse 22
6072 Dreieich 1
Germany
Telex: 529821

THE NETHERLANDS
Elpro b.v.
De Limiet 3
4131 NR Vianen
The Netherlands
Telex: 47679

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 201530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Rainer House
Ove Street, 10
Doornfontein
Johannesburg
Telex: 483.456

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
DYNAVOX ELECTRONICS
Route de Villars 105
1701 Fribourg
Switzerland
Telex: 942377

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

U.S.A.
MARANTZ COMPANY, Inc.
National Service Department
P.O.Box 577
Chatsworth, CA 91311
U.S.A.

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

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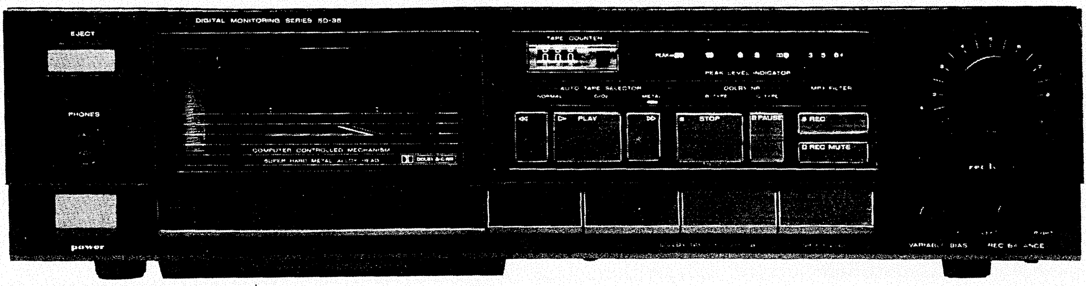
How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by MJI.
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.
  In case of ordering, please establish the parts number of 12 N/C'S following the procedure mentioned in this service manual "How to establish the parts number for common parts".

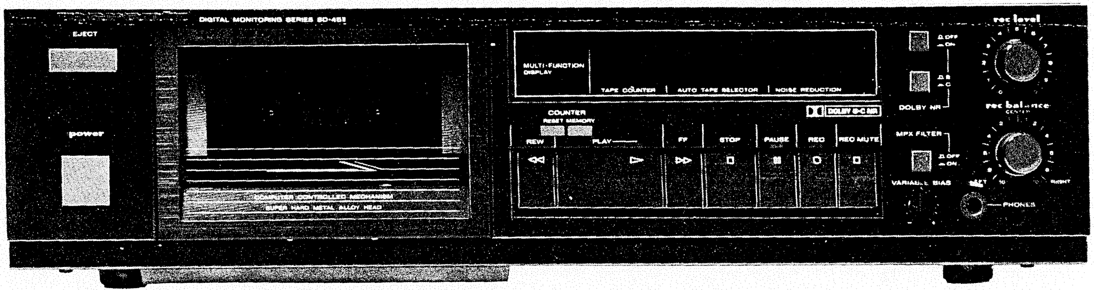
NOTE:
When you order parts to the Marantz parts center, please take notice of the following points.

1. Please correctly write the parts number of 12 N/C'S following the rule.
2. **Since ordering parts by the Ref. Design. No. or ratings indicated in the schematic diagram does not satisfy the above conditions, the Marantz parts supply system dose not work properly.**
   As this case is apt to cause a trouble, please pay attention to it.

MODEL SD-35 STEREO CASSETTE DECK


DIGITAL MONITORING SERIES SD-35
EJECT
PHONES
power
TAPE COUNTER
PEAK LEVEL INDICATOR
AUTO TAPE SELECTOR
DOLBY NR
MPX FILTER
PLAY
STOP
PAUSE
REC
REC MUTE
COMPUTER CONTROLLED MECHANISM
SUPER HARD METAL ALLOY HEAD
VARIABLE BIAS
REC BALANCE

MODEL SD-45II STEREO CASSETTE DECK


DIGITAL MONITORING SERIES SD-45II
EJECT
power
MULTI-FUNCTION DISPLAY
TAPE COUNTER
AUTO TAPE SELECTOR
NOISE REDUCTION
COUNTER
RESET MEMORY
REW
PLAY
FF
STOP
PAUSE
REC
REC MUTE
DOLBY B-C NR
COMPUTER CONTROLLED MECHANISM
SUPER HARD METAL ALLOY HEAD
rec level
DOLBY NR
rec balance
MPX FILTER
VARIABLE BIAS
PHONES

1. P.W. BOARDS

As can be seen from the circuit diagram, the chassis of your Cassette Deck consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. Audio Main .... mounted on P.W. Board PJ03
2. NR Switch/
   MPX Switch .... mounted on P.W. Board PJ33
3. Rec Volume .... mounted on P.W. Board PJ43
4. Headphone Jack .... mounted on P.W. Board PG03
5. Logic Switch/LED
   indicator .... mounted on P.W. Board PS03
6. Power Supply/Logic
   Main .... mounted on P.W. Board PU03
7. FL Meter/Counter
   Driver .... mounted on P.W. Board PX03
8. FL Meter .... mounted on P.W. Board PX13
9. Power Switch .... mounted on P.W. Board P833
10. Power Transf.
    Connector .... mounted on P.W. Board P883
11. Power Transf. Cover ..... mounted on P.W. Board P893

2. TEST EQUIPMENT REQUIRED FOR SERVICING

For measuring or checking your Cassette Deck, the following instruments and materials are necessary.

- VTVM
- Audio Oscillator (AF OSC)
- Attenuator (600 Ω)
- Oscilloscope
- Bandpass Filter (1 kHz)
- IEC A-Curve Filter
- Wow and Flutter Meter
- Torque Meter (Cassette Type)
- Digital Frequency Counter
- Distortion Meter
- Blank Tapes (Completely erased with bulk eraser)
  TDK AC-212 (Normal)
  TDK AC-512 (CrO_2)
  TDK AC-712 (Metal)

NOTE:
If any doubt is noted in a measured value, use new tape.

- Test Tapes (New Tape)

TCC-112·MTT-111	Wow and Flutter, Tape Speed
TCC-140·MTT-112B	Signal-to-Noise Ratio
TCC-120·MTT212	Output
TCC-130·MTT-150	Level Adjustment
TCC-161·MTT-256	Frequency Response (for Normal)
TCC-261·MTT-356	Frequency Response (for CrO_2 and Metal)
TCC-192·MTT-121	Cross Talk
TCC-194·MTT-141	Channel Separation
(A-BEX)·(TEAC)	

3. OPERATIONAL DESCRIPTION OF MICROPROCESSOR ITS PERIPHERAL CIRCUITS

3.1 MECHANISM OF THIS UNIT

The rotation energy of the flywheel operates the head chassis movement, braking, etc. A plunger is used to eliminate the flywheel energy, so, when the mechanism is switched, pulse voltage is applied to the capstan motor and plunger.

3.2 INITIAL CHECK

With a tape loaded in the cassette holder, set the Power switch to "ON" and check for the following operations.

(1) The operation buttons become operable 4 seconds after power is switched on.
(2) When the mechanism is not in normal stop mode, pressing the FF or REW button lets the reel motor slip.
(3) When the mechanism is in PLAY mode, switching the Power switch ON returns the mechanism to stop mode.

3.3 MICROPROCESSOR OPERATION CHECK

(1) Clock generation
Figure 1 shows the waveforms at pins ① and ㊷ of QU01.

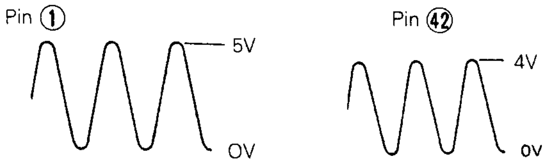


Figure 1

(2) RES terminal
Figure 2 shows the voltage variation at pin ⑦ of QU01 which occurs when power is switched ON and OFF. All output terminals become "H" when this terminal becomes "L".

(3) Figure 2 shows the voltage variation at pin ⑥ of QU01 which occurs when power is switched ON and OFF. Except when the mechanism is already in stop mode, it is stopped when this terminal becomes "L". When power supply is interrupted during mechanism operation, the output of Q801 which supplies voltage to pin ⑥ drops suddenly and the mechanism enters stop mode.

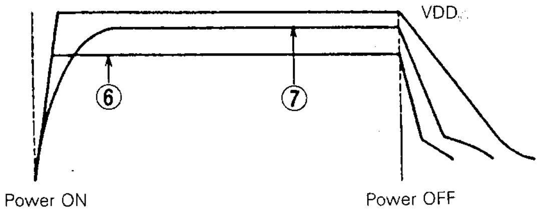


Figure 2

(4) Input/output terminals
Pulses output at pins ⑧ to ⑪ of QU01 appear at input terminal pins ② to ⑤, ⑲ and ㊵ of QU01 when the corresponding operation buttons or switches are switched ON.

(5) By the timer IC (QU71), the pulse is output to fix the 1-way mode.

3.4 F/R MOTOR DRIVER CIRCUIT

The direction of F/R motor rotation is determined by the outputs from pins ㉖ and ㉗ of QU01, and the winding torques in PLAY and FF/REW modes are switched by pin ⑭ of QU01.

The outputs according to the pin operating conditions are shown below.

QU01 Pin NO.	STOP	FF	REW	FORWARD PLAY
㉖	L	L	H	L
㉗	L	H	L	H
⑭	L	L	L	0.7V

H : 1.8V
L : 0V

Table 1

4. OPERATIONAL DESCRIPTIONS OF AUDIO AND PERIPHERAL CIRCUITS

The SD-45II/SD-35 uses new TDA1600 and TDD1601 ICs exclusively for the tape audio circuits.

4.1 REC/PLAY HEAD SWITCHING AND BIAS OSCILLATOR IC TDA1600

4.1.1 Built-in circuit of IC and features (Refer to Fig. 3)

(1) R/P Head SW:	Including rec/play head switching circuit.
(2) Bias OSC:	Tape bias oscillator circuit including CrO_2/Metal indication switching circuit and Normal/CrO_2/Metal shift function.

4.1.2 Block diagram

Figure 3 shows the block diagram incorporating TDA1600.

(1) Each switching operation is performed by an electronic switching method and the input conditions are as follows: Pin ⑬ Tape Selector: (Normal) V+, (CrO_2) V/2, (Metal) V−, Pin ㉓ Rec/Play: (Play) V−, (Rec) V+

(2) This IC operates as a DC 15 V single power supply, however, since the audio circuit ground is fixed at 1/2 V, it functions as a ±7.5 V dual-power supply externally.

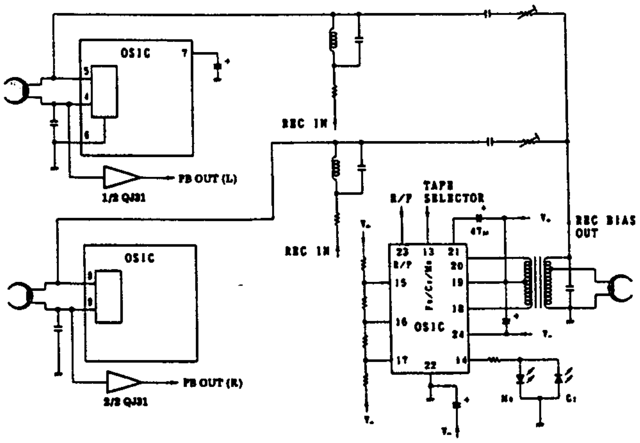
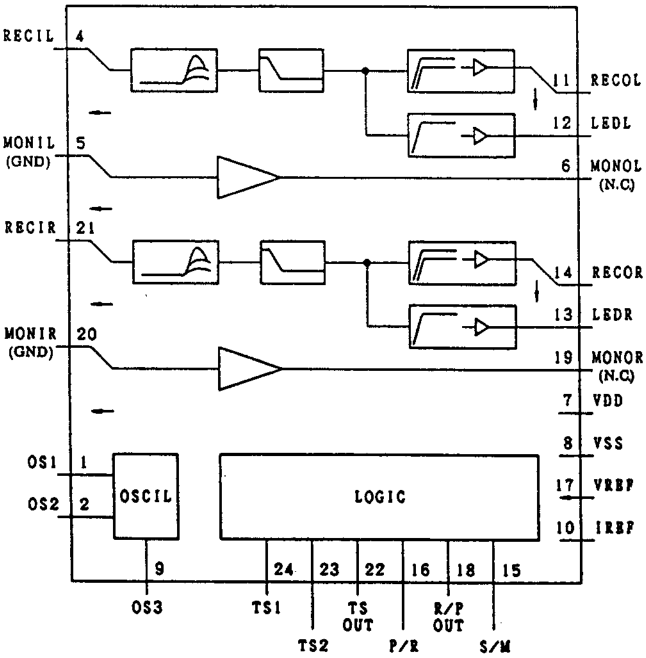

OSIC
7
5
4
6
REC IN
PB OUT (L)
1/2 Q401
OSIC
PB OUT (R)
2/2 Q401
REC IN
R/P
TAPE SELECTOR
REC BIAS OUT
23
13
21
R/P
20
15
19
18
16
OSIC
24
17
22
14
No
Cr

Figure 3

4.2 RECORDING EQUALIZER AMP IC TDD1601

4.2.1 Buit-in circuit of IC and features

Figure 4 shows the internal construction of IC and pin connections.


RECIL
4
MONIL (GND)
5
RECIR
21
MONIR (GND)
20
OS1
1
OS2
2
OSCIL
LOGIC
11
RECOL
12
LEDL
6
MONOL (N.C)
14
RECOR
13
LEDR
19
MONOR (N.C)
7
VDD
8
VSS
17
VREF
10
IREF
9
24
23
22
16
18
15
OS3
TS1
TS OUT
R/P OUT
TS2
P/R
S/M

PIN NO.	SIGNAL	DESCRIPTION
1	OS1	Oscillator input
2	OS2	Oscillator output
3	N.C.	
4	RECIL	Recording path input left channel
5	MONIL	Monitor path input left channel
6	MOXOL	Monitor path output left channel
7	VDD	Highest power supply
8	VSS	Lowest Power supply
9	OS3	Oscillator control
10	IREF	Current adjustment
11	RECOL	Recording path output left channel
12	LEDL	Ledbar output left channel
13	LEDR	Ledbar output right channel
14	RECOR	Recording path output right channel
15	S/M	Signal/mute input
16	P/R	Playback/record selection input
17	VREF	AC ground
18	R/P OUT	Record/playback selection output
19	MONOR	Monitor path output right channel
20	MONIR	Monitor path input right channel
21	RECIR	Recording path input right channel
22	TS OUT	Tape selection output
23	TS2	Tape selection input 2
24	TS1	Tape selection input 1

Figure 4

(1) **Rec EQ Amp:** Recording equalizer amp using the switched capacitor method, and its compensation levels conform to IEC standard tapes. The peak frequency is determined by the clock frequency and shifted to each tape type programmably.
In the SD-45II/SD-35, they are set to the following values:

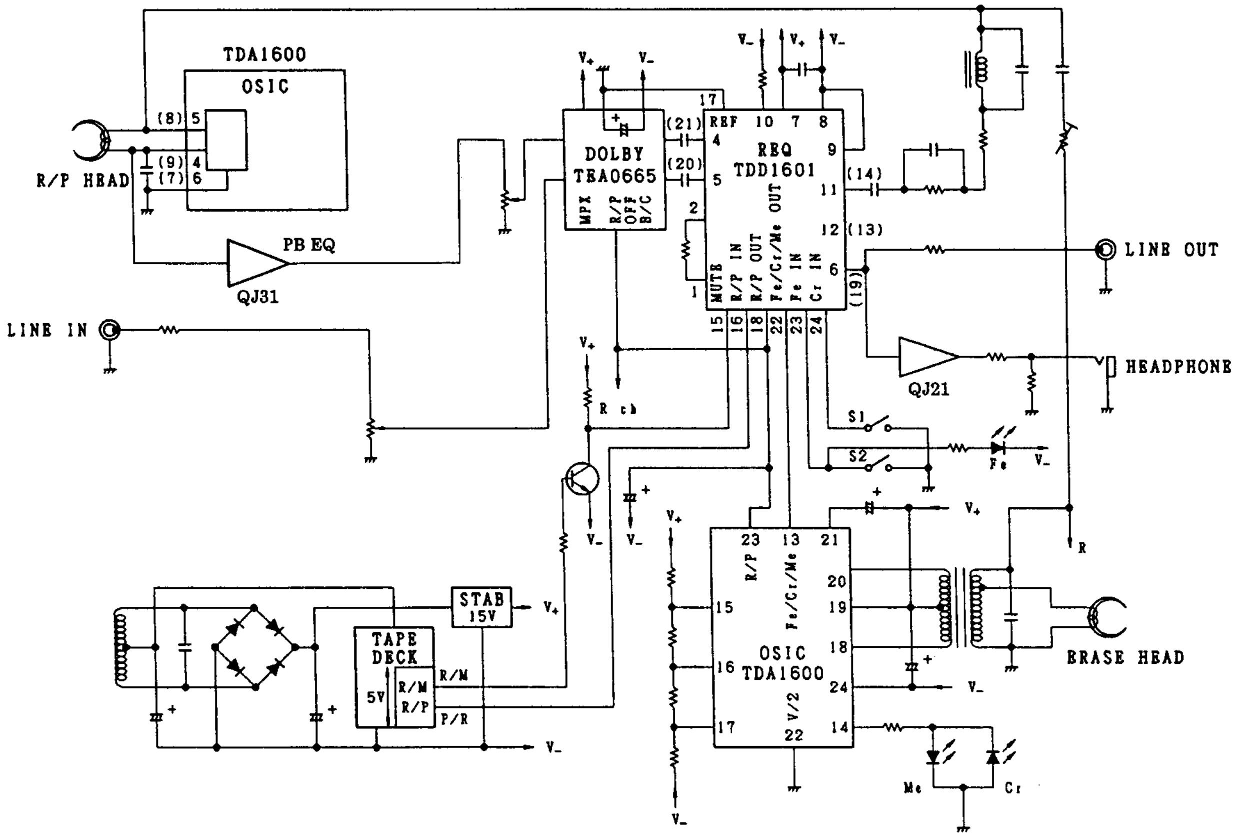
Normal	17.5kHz
CrO_2	18.5kHz
Metal	19.5kHz

Table 2

(2) **Electrical Switching:** Rec/play and Tape Selector switching signals are output for IC internal switching and the switching TDA 1600, by each Rec/play, Tape Selector. The input signals correspond to V− to +5 V for mechanism logic, and output signals are shifted to V− to V+ level to perform electronic switching.

4.2.2 Circuit configuration (Block diagram)

Figure 5 shows the simplified block diagram of TDA1600, TDD1601 and TEA0665 (Dolby NR IC).



TDA1600
OSIC
(8) 5
(9) 4
(7) 6
R/P HEAD
PB EQ
QJ31
LINE IN
V+
V−
DOLBY
TEA0665
MPX
R/P
OFF
B/C
(21)
(20)
4
5
2
1
17
REF 10 7 8
REQ
TDD1601
9
(14)
11
12 (13)
6
(19)
OUT
MUTE
R/P IN
R/P OUT
Fe/Cr/Me OUT
Fe IN
Cr IN
15 16 18 22 23 24
LINE OUT
HEADPHONE
QJ21
R ch
S1
S2
Fe
V+
V−
R
23 13 21
R/P
Fe/Cr/Me
20
19
18
15
16
OSIC
TDA1600
24
17
V/2
22
14
Me
Cr
ERASE HEAD
STAB
15V
TAPE
DECK
5V
R/M
R/P
P/R

Figure 5

5. MECHANISM OPERATIONAL DESCRIPTION

5.1 STOP

The head position is always pointed in the FWD direction. (See Fig. 6)

5.2 FWD PLAY

a. When voltage is applied to the solenoid, the play arm is relesed by the stopper of the cam, and the cam gear is meshed with the flywheel gear and starts rotation.

b. When the cam of Item a operates, it is guided towards the cam section for FWD operation and locked in the condition shown in Fig. 9

5.3 FWD/PLAY → STOP

Voltage is applied to the solenoid to rotate the cam gear, and the mechanism returns to the condition shown in Fig. 7

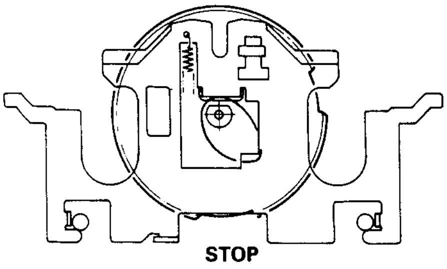


Figure 6

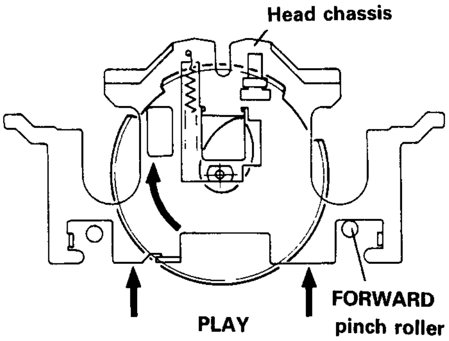

Head chassis
PLAY
FORWARD
pinch roller

Figure 8

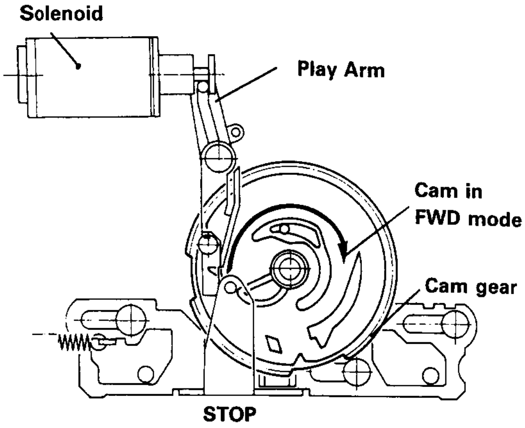

Solenoid
Play Arm
Cam in
FWD mode
Cam gear
STOP

Figure 7

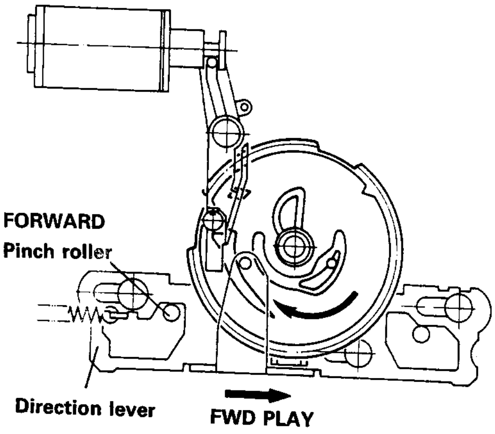
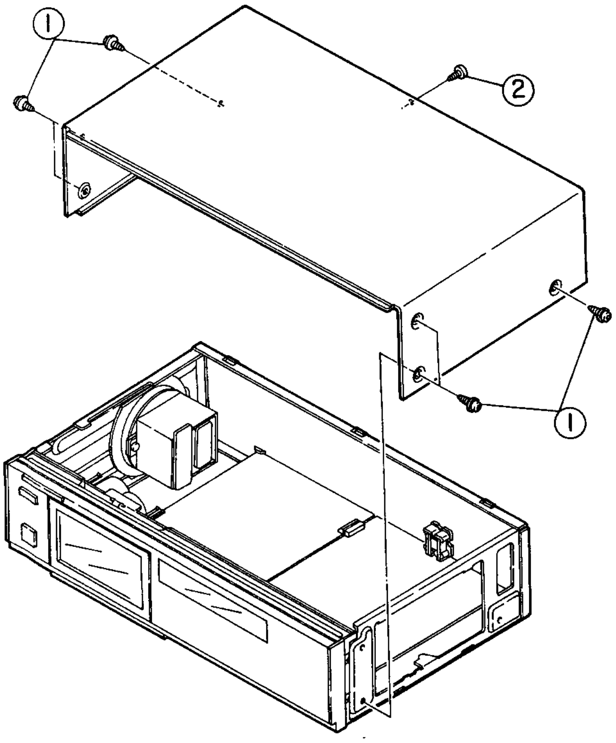

FORWARD
Pinch roller
Direction lever
FWD PLAY

Figure 9

6. DISASEMBLY

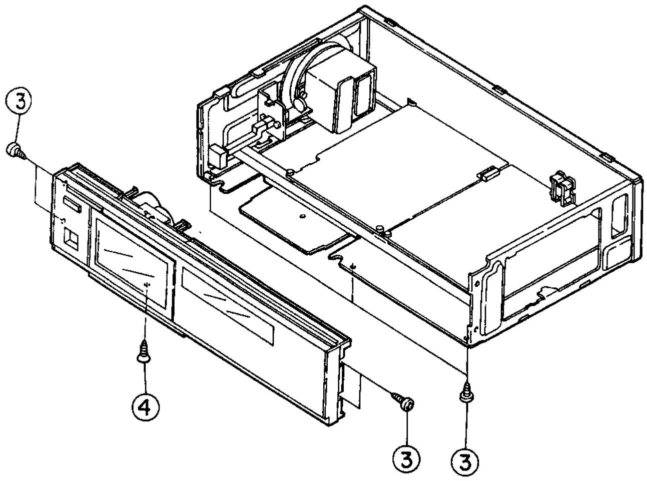
6.1 REMOVING THE TOP COVER

Remove the four screws ① and the screw ② as shown in the figure.



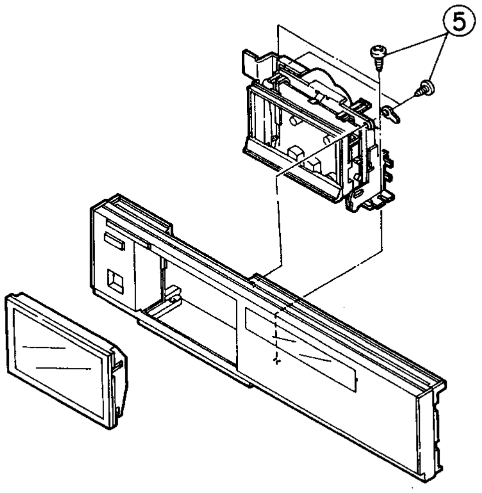
6.2 REMOVING THE FRONT PANEL

After removing the top cover, remove the seven securing screws ③ and the screw ④ as shown in the figure.



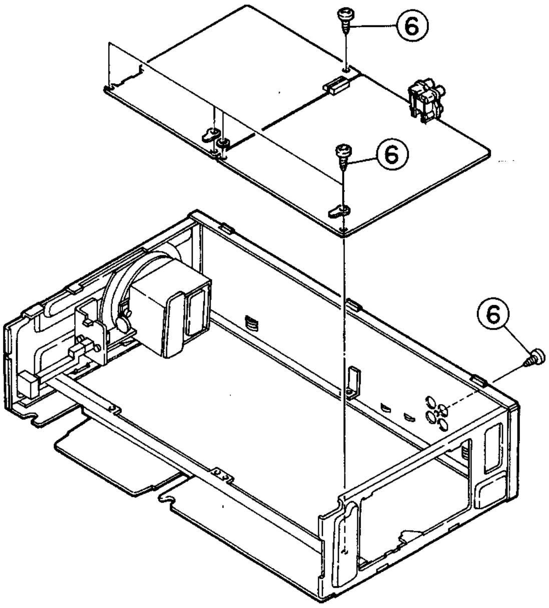
6.3 REMOVING THE MAIN P.W. BOARD

Remove the four securing screws ⑤ as shown in the figure.



6.4 REMOVING THE MECHANISM

Remove the six securing screws ⑥ as shown in the figure.



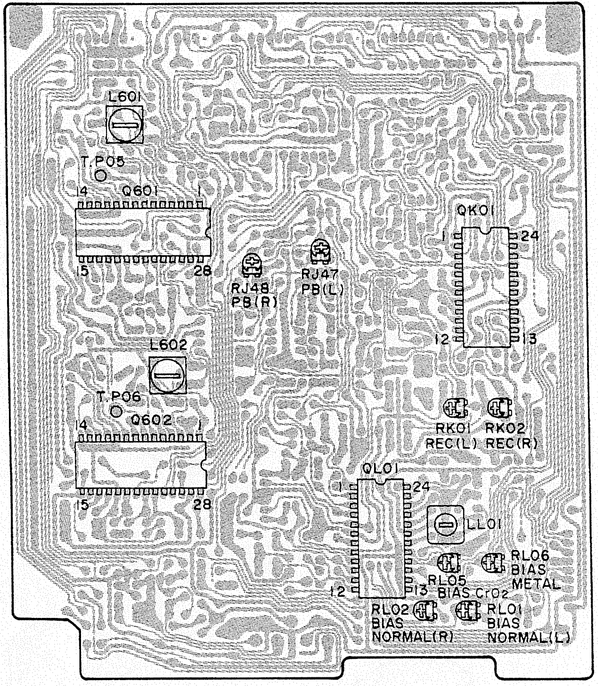
7. ELECTRICAL ADJUSTMENTS

Precautions before Adjustment

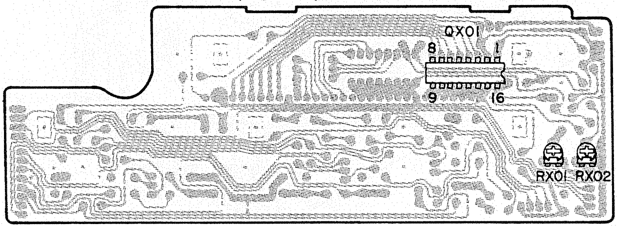
1. Before playing the test tape back, thoroughly demagnetize the heads, capstan and similar metal parts using an eraser as the test tape-recorded tone is easily erased.
2. Do not place the test tape on any measuring instrument.
3. Do not put the test tape near a place where the eraser is used.
4. Method of Demagnetization: – Turn the eraser power switch on at a remote position far away from the heads. Bring the eraser close to the heads, capstan and other parts to be demagnetized, and move it up and down four or five times to demagnetize. Slowly separate the eraser far away from the parts, and turn the power switch off.
5. Do not use any magnetize it from time to time in the course of each adjustment.
6. Do not turn semi-fixed resistor more than needed.
7. Do not apply locking bond excssively.

ADJUSTMENT POINT (COMPONENT SIDE)

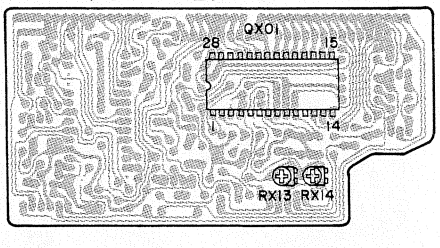
PJ03


L601
T.P05
14
Q601
1
15
28
RJ48
PB(R)
RJ47
PB(L)
QK01
1
24
12
13
L602
T.P06
Q602
14
1
15
28
RK01
REC(L)
RK02
REC(R)
QL01
1
24
LL01
RL06
BIAS
METAL
12
13
RL05
BIAS CrO2
RL02
BIAS
NORMAL(R)
RL01
BIAS
NORMAL(L)

PX03 (SD-35) ONLY

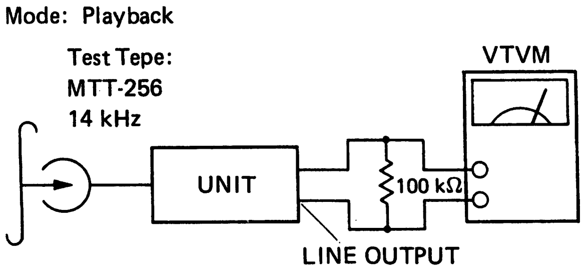

QX01
8
1
9
16
RX01
RX02

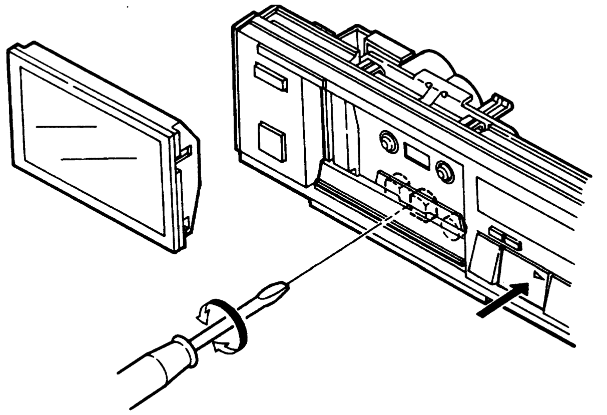
PX03 (SD-45MKII) ONLY


QX01
28
15
1
14
RX13
RX14

7.1 HEAD AZIMUTH ADJUSTMENT

1. Remove the cassette door lid.
2. Set the TAPE SELECT switch to the NORM position.
3. Play the 14 kHz signal of the test tape MTT-256, back. Adjust the head azimuth adjusting screw for maximum VTVM reading.
4. Adjust the left screw.
5. If the peak output reads of the right and left channels are different, set the screws to obtain the mechanical center between the peaks.
6. After adjustment, repeat the playback and stop setting a few times to make certain of no head azimuth deviation. Then, lock the screws with bond.


Mode: Playback
Test Tepe:
MTT-256
14 kHz
UNIT
100 kΩ
VTVM
LINE OUTPUT

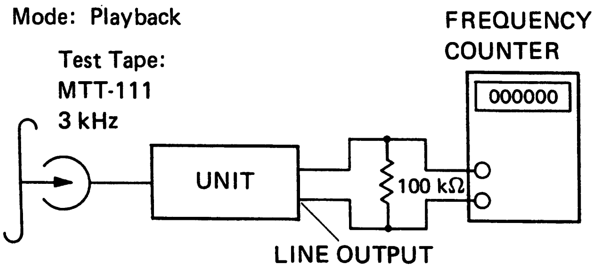


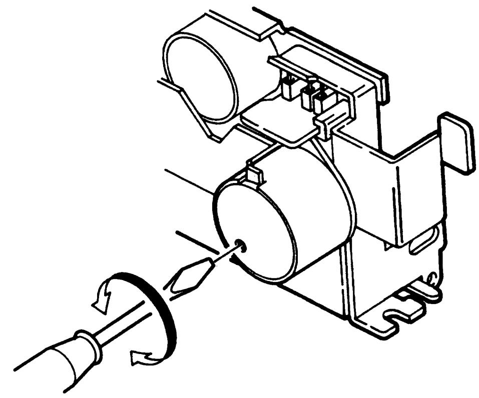
7.2 TAPE SPEED ADJUSTMENT

Play the 3 kHz signal of the test type MTT-111, back. Adjust the tape speed adjusting resistor inside the motor (M071) for 2990 to 3010 Hz counter indication,

NOTE:

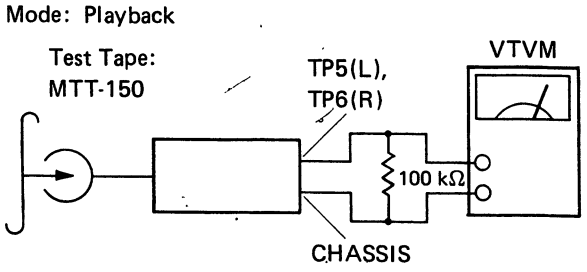
1. **If a strong shock of similar vibration is applied to the back after adjustment, make certain that the measured tape speed had not changed.**
2. **Be careful that the frequency counter may indicate a wrong value because of too low counter input level.**
3. **Before adjustment, allow for 30 seconds or more after depressing of the PLAY button.**


Mode: Playback
Test Tape:
MTT-111
3 kHz
UNIT
100 kΩ
FREQUENCY
COUNTER
000000
LINE OUTPUT



7.3 PLAY BACK OUTPUT LEVEL AND METER ADJUSTMENTS

1. Play the test tape MTT-150, and adjust RJ47 (L), RJ48 (R), in the audio P.W board (PJ03) so that the playback output at TP5 (L), TP6 (R), Dolby NR circuits becomes 390 mV.
2. In the above condition, adjust RX13 (L) and RX14 (R) in the PX03 meter P.W. board so that the meter reading is 0 dB (ᗡD mark indicating point).

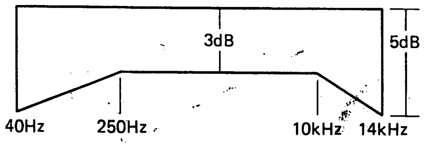

Mode: Playback
Test Tape:
MTT-150
TP5(L),
TP6(R)
100 kΩ
VTVM
CHASSIS

7.4 REC/PLAY FREQUENCY CHARACTERISTIC ADJUSTMENT/MEASUREMENT (NORMAL)

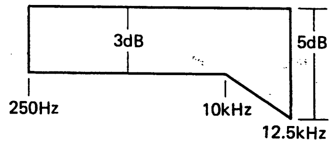
1. Load the AC-212 test tape in the cassette holder, reduce the Dolby level by −22 dB using the attenuator, and record 1 kHz and 12.5 kHz on non-recorded portion. (DOLBY-C position)
2. Adjust RL01 (L) and RL02 (R) in the PJ03 P.W. board so that 1 kHz and 12.5 kHz frequencies become 0 ±1.0 dB when the tape is played back after rewinding.
3. After adjustment, record 1 kHz, 10 kHz and 12.5 kHz, and check that the playback level differences of those frequencies are as given below.
4. With the DOLBY switch at position "B", record 1 kHz, 10 kHz and 12.5 kHz, and check that their playback level differences are as given below.
5. With the DOLBY switch OFF, record 1 kHz, 10 kHz and 12.5 kHz, and check that their playback level differences are as given below.
6. With DOLBY OFF, check that the L/R channel balance for 10 kHz is less than 3 dB.

NOTE:
When 1 kHz level difference in DOLBY-C mode is 1 dB or more compared to the monitor, adjust RK01 (L) and RK02 (R) for the REC LEVEL adjustment previously, so that the difference is within 1 dB.

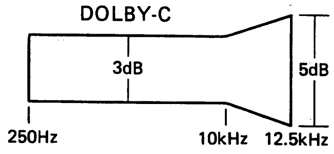
DOLBY-OFF



DOLBY-B



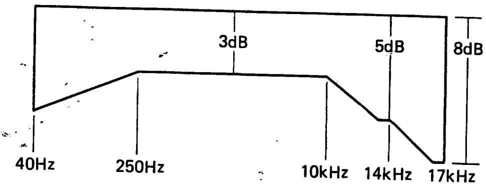
DOLBY-C



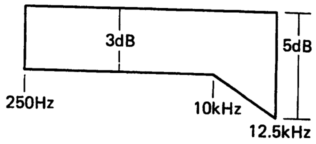
7.5 REC/PLAY FREQUENCY CHARACTERISTIC ADJUSTMENT/MEASUREMENT (CrO$_2$)

1. Load the AC-512 test tape in the cassette holder, reduce the Dolby level by −22 dB using the attenuator, and record 1 kHz and 12.5 kHz on non-recorded portion. (DOLBY-C position)
2. Adjust RL05 in the PJ03 P.W. board so that 1 kHz and 12.5 kHz frequencies become 0 ± 1.0 dB when the tape is played back after rewinding.
3. After adjustment, record 1 kHz, 10 kHz and 12.5 kHz, and check that the playback level differences of those frequencies are as given below.
4. With the DOLBY switch at position "B", record 1 kHz, 10 kHz and 12.5 kHz, and check that their playback level differences are as given below.
5. With the DOLBY switch OFF, record 1 kHz, 10 kHz and 15 kHz, and check that their playback level differences are as given below.
6. With DOLBY OFF, check that the L/R channel balance for 10 kHz is less than 3 dB.

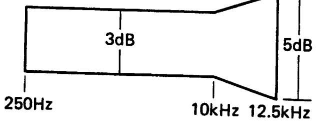
DOLBY-OFF



DOLBY-B

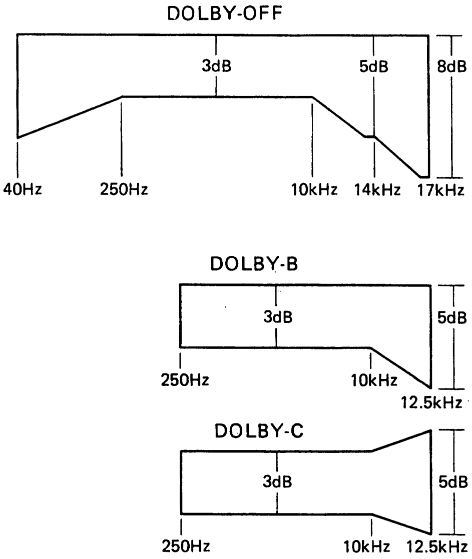


DOLBY-C



7.6 REC/PLAY FREQUENCY CHARACTERISTIC ADJUSTMENT/MEASUREMENT (METAL)

1. Load the AC-712 test tape in the cassette holder, reduce the Dolby level by −22 dB using the attenuator, and record 1 kHz and 12.5 kHz on non-recorded portion. (DOLBY-C position)
2. Adjust RL06 in the PJ03 P.W. board so that 1 kHz and 12.5 kHz frequencies become 0 ± 1.0 dB when the tape is played back after rewinding.
3. After adjustment, record 1 kHz, 10 kHz and 12.5 kHz, and check that their playback level differences of those frequencies are as given below.
4. With the DOLBY switch at position "B", record 1 kHz, 10 kHz and 12.5 kHz, and check that their palyback level differences are as given below.
5. With the DOLBY switch OFF, record 1 kHz, 10 kHz and 15 kHz, and check that their playback level differencies are as given below.
6. With DOLBY OFF, check that the L/R channel balance for 10 kHz is less than 3 dB.

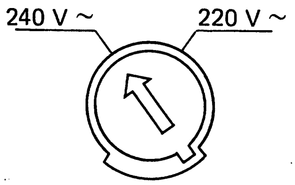


8. VOLTAGE CONVERSION

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

CAUTION:
DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE. DO NOT DISASSEMBLE THE VOLTAGE SELECTOR ABSOLUTELY.

VOLTAGE SELECTOR

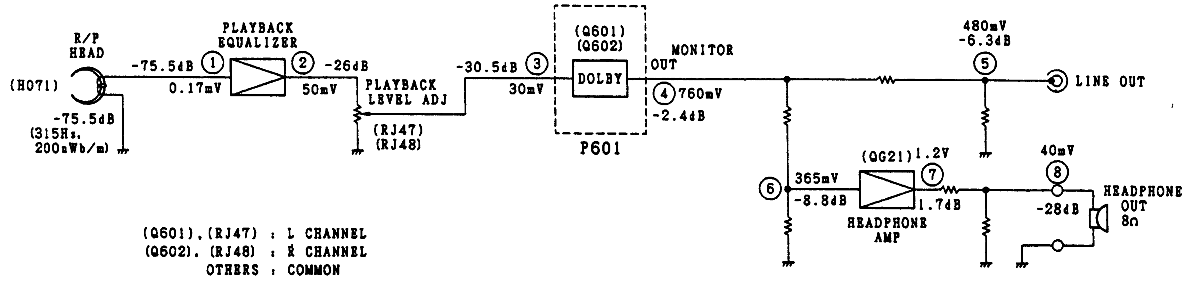


(N, A) Version

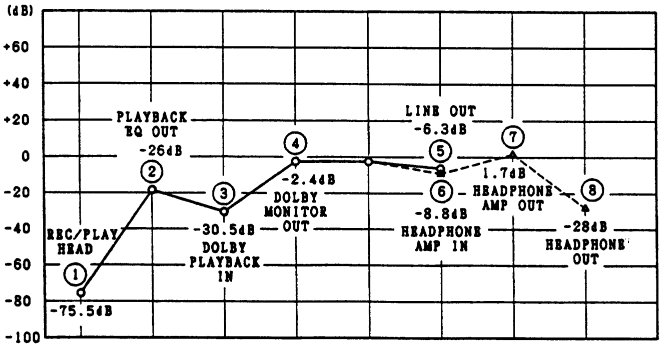
NOTE ON SAFETY:
SYMBOL ⚠ FIRE OR ELECTRICAL SHOCK HAZARD. ONLY ORIGINAL PARTS SHOULD BE USED TO REPLACE ANY PART MARKED WITH SYMBOL ⚠. ANY OTHER COMPONENT SUBSTITUTION (OTHER THAN ORIGINAL TYPE), MAY INCREASE RISK OF FIRE OR ELECTRICAL SHOCK HAZARD.

9. BLOCK AND LEVEL DIAGRAM

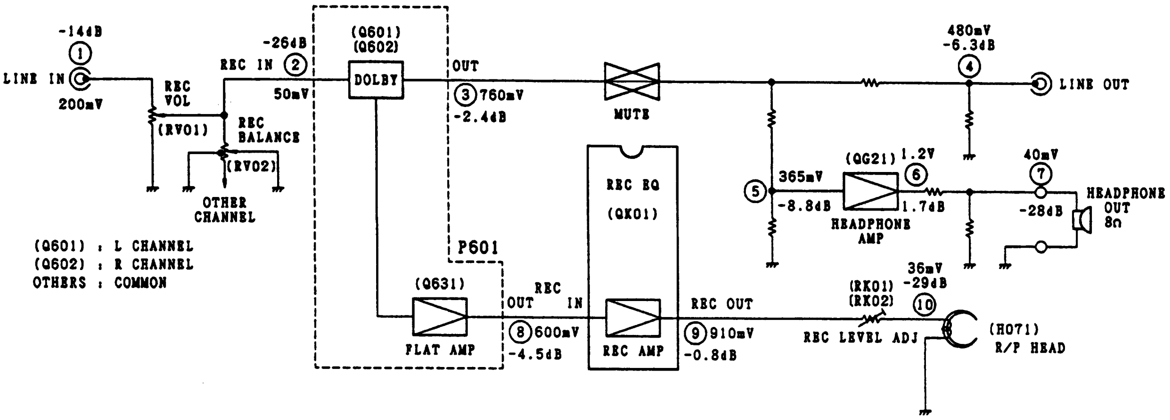
PLAYBACK LEVEL DIAGRAM


R/P HEAD
(H071)
-75.5dB
(315Hz, 200nWb/m)
PLAYBACK EQUALIZER
-75.5dB ①
0.17mV
② -26dB
50mV
PLAYBACK LEVEL ADJ
(RJ47)
(RJ48)
-30.5dB ③
30mV
(Q601)
(Q602)
DOLBY
P601
MONITOR OUT
④760mV
-2.4dB
480mV
-6.3dB
⑤
LINE OUT
⑥
365mV
-8.8dB
(QG21) 1.2V
⑦
1.7dB
HEADPHONE AMP
40mV
⑧
-28dB
HEADPHONE OUT
8Ω

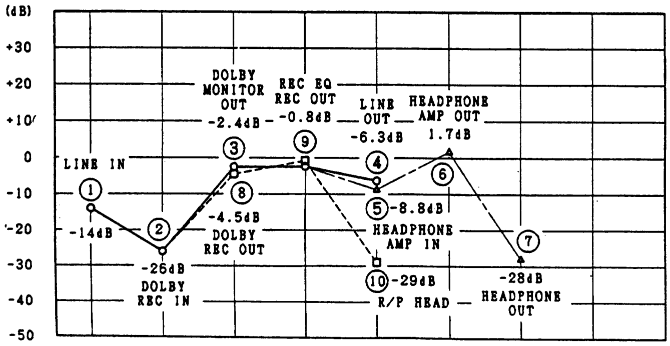
(Q601), (RJ47) : L CHANNEL
(Q602), (RJ48) : R CHANNEL
OTHERS : COMMON



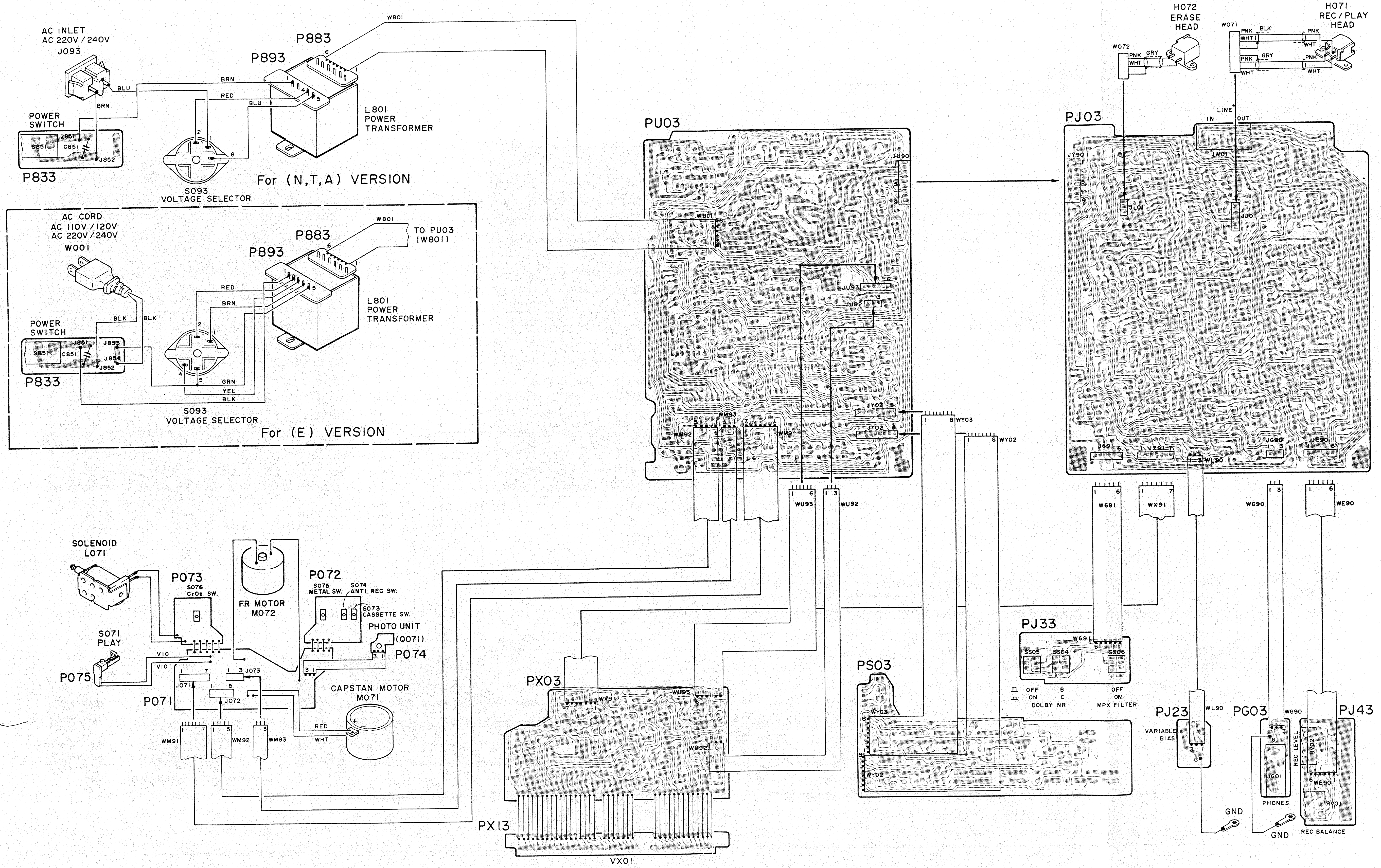
REC. LEVEL DIAGRAM

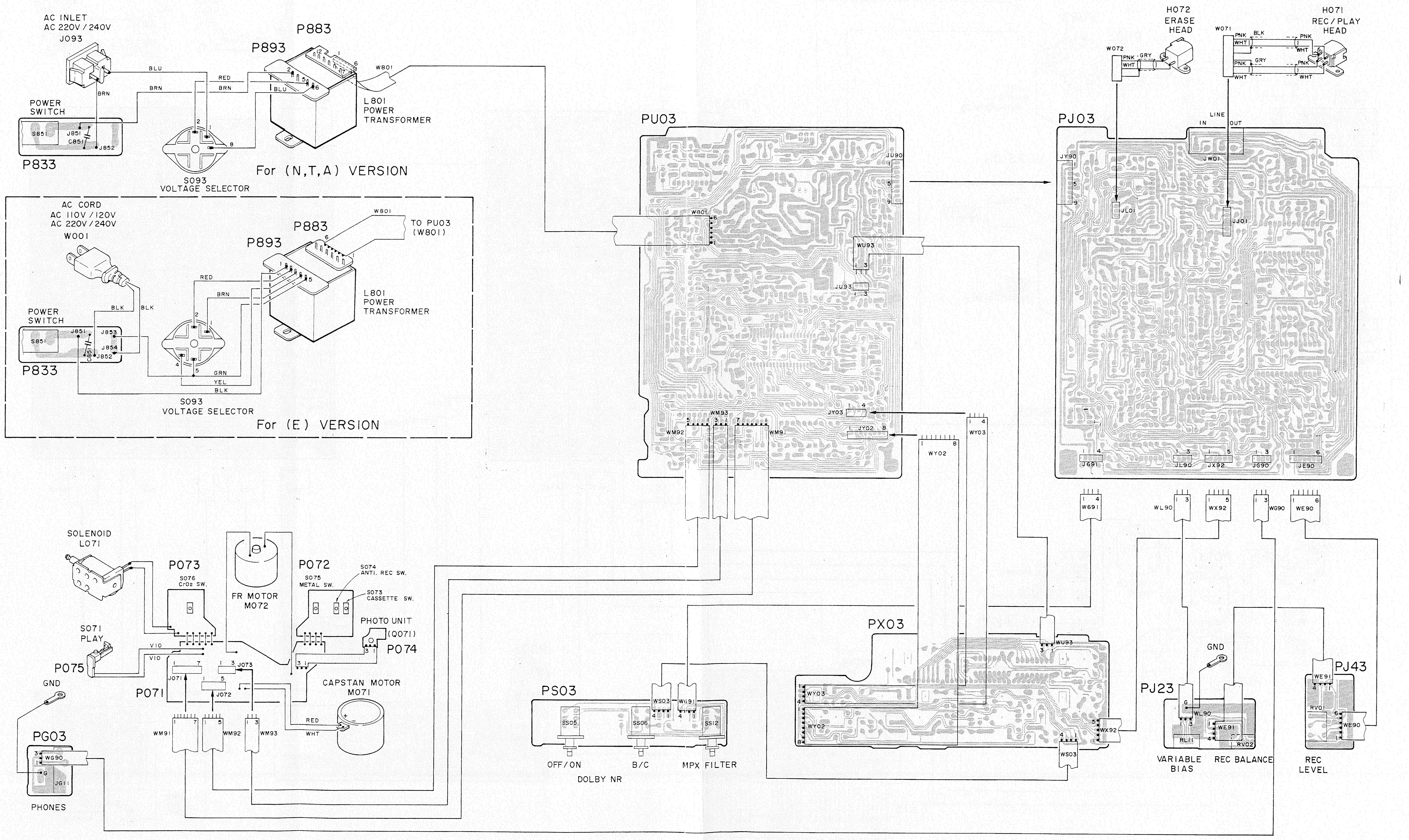

-14dB
①
LINE IN
200mV
REC VOL
(RV01)
REC BALANCE
(RV02)
OTHER CHANNEL
-26dB
REC IN ②
50mV
(Q601)
(Q602)
DOLBY
OUT
③760mV
-2.4dB
P601
(Q631)
FLAT AMP
REC OUT
⑧600mV
-4.5dB
MUTE
REC EQ
(QK01)
IN
REC AMP
REC OUT
⑨910mV
-0.8dB
480mV
-6.3dB
④
LINE OUT
⑤
365mV
-8.8dB
(QG21) 1.2V
⑥
1.7dB
HEADPHONE AMP
40mV
⑦
-28dB
HEADPHONE OUT
8Ω
36mV
-29dB
(RK01)
(RK02)
⑩
REC LEVEL ADJ
(H071)
R/P HEAD

(Q601) : L CHANNEL
(Q602) : R CHANNEL
OTHERS : COMMON

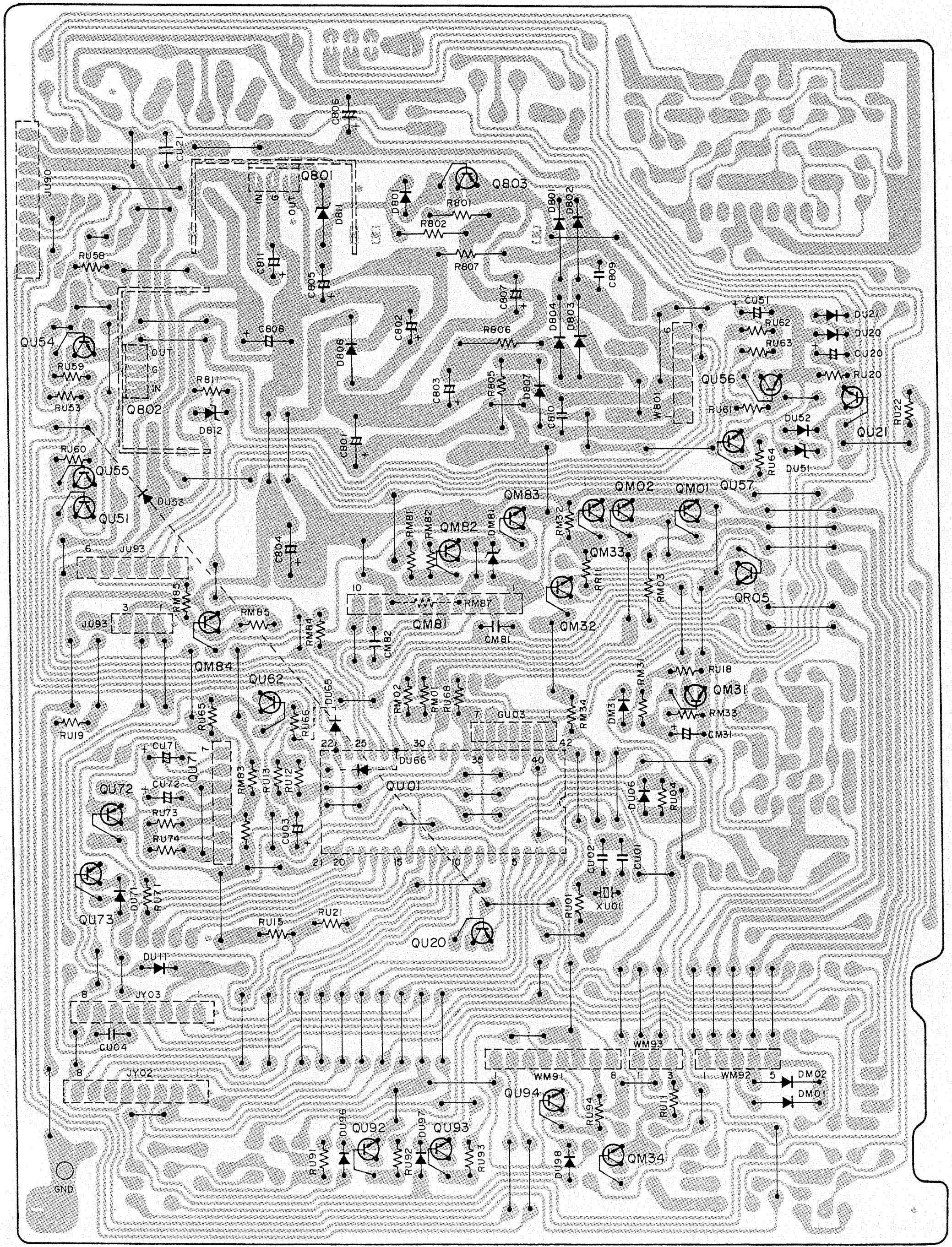


10. WIRING DIAGRAM (Component Side)

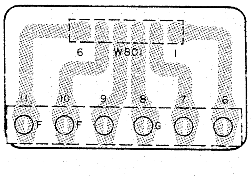

AC INLET
AC 220V / 240V
J093
POWER SWITCH
S851
C851
J851
J852
P833
BRN
BLU
RED
W801
P883
P893
L801
POWER TRANSFORMER
S093
VOLTAGE SELECTOR
For (N,T,A) VERSION
AC CORD
AC 110V / 120V
AC 220V / 240V
W001
TO PU03 (W801)
BLK
J853
J854
GRN
YEL
For (E) VERSION
PU03
JU90
JU93
JU92
JY03
JY02
WM93
WM92
WM91
WY03
WY02
WU93
WU92
H072
ERASE HEAD
W072
PNK
GRY
WHT
H071
REC / PLAY HEAD
W071
LINE
IN
OUT
PJ03
JY90
JW01
JL01
JJ01
J691
JX91
WL90
JG90
JE90
W691
WX91
WG90
WE90
SOLENOID
L071
P073
S076
CrO2 SW.
FR MOTOR
M072
P072
S075
METAL SW.
S074
ANTI. REC SW.
S073
CASSETTE SW.
PHOTO UNIT
(Q071)
P074
S071
PLAY
P075
V10
J071
J072
J073
P071
CAPSTAN MOTOR
M071
RED
WHT
WM91
WM92
WM93
PX03
WX91
WU93
WU92
PX13
VX01
PS03
WY03
WY02
PJ33
W691
S805
S804
S806
OFF
ON
B
C
DOLBY NR
OFF
ON
MPX FILTER
PJ23
WL90
VARIABLE BIAS
PG03
WG90
JG01
PHONES
GND
PJ43
WE90
REC LEVEL
RV02
RV01
REC BALANCE
GND


AC INLET
AC 220V / 240V
J093
P883
P893
BLU
RED
BRN
W801
POWER SWITCH
S851
J851
C851
J852
P833
L801
POWER TRANSFORMER
S093
VOLTAGE SELECTOR
For (N,T,A) VERSION
AC CORD
AC 110V / 120V
AC 220V / 240V
W001
TO PU03 (W801)
BLK
J853
J854
GRN
YEL
For (E) VERSION
PU03
JU90
WU93
JU93
JY03
JY02
WM93
WM92
WM91
WY02
WY03
PJ03
H072
ERASE HEAD
H071
REC / PLAY HEAD
W072
W071
PNK
WHT
GRY
LINE
IN
OUT
JY90
JW01
JL01
JJ01
J691
JL90
JX92
JG90
JE90
W691
WL90
WX92
WG90
WE90
SOLENOID
L071
P073
S076
CrO2 SW.
FR MOTOR
M072
P072
S075
METAL SW.
S074
ANTI. REC SW.
S073
CASSETTE SW.
PHOTO UNIT
(Q071)
P074
S071
PLAY
P075
V10
J071
J072
J073
P071
CAPSTAN MOTOR
M071
GND
PG03
JG11
PHONES
PS03
SS05
SS06
SS12
WS03
WG91
OFF / ON
B/C
MPX FILTER
DOLBY NR
PX03
WU93
PJ23
RL11
RV02
WE91
VARIABLE BIAS
REC BALANCE
PJ43
RV01
REC LEVEL

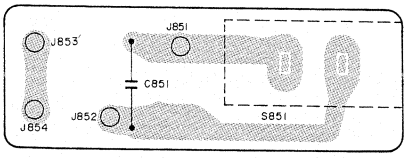
(PU 03) Power Supply/Logic Main P.W. Board


C806
CU21
JU90
Q801
IN
G
OUT
D811
D801
Q803
R801
R802
D801
D802
R807
C811
C905
C809
RU58
C808
C802
D808
R806
D804
D803
CU51
RU62
RU63
DU21
DU20
CU20
RU20
QU54
RU59
RU53
OUT
G
IN
Q802
R811
D812
C803
R805
D807
C810
C801
W801
9
QU56
RU61
QU21
RU22
DU52
DU51
RU64
RU60
QU55
QU51
DU53
QM02
QM01
QU57
QM83
RM81
RM82
QM82
DM81
RM32
QM33
RR11
RM03
QR05
C804
6
JU93
3
JU93
RM85
RM85
10
RM87
1
QM81
CM82
CM81
QM32
RM84
QM84
QU62
DU65
RU18
RM31
QM31
RM33
CM31
DM31
RM02
RM01
RU68
7
GU03
RM34
RU19
RU65
RU63
CU71
7
QU72
CU72
RU73
RU74
RM83
RU13
RU12
CU03
22
25
30
35
40
42
DU66
QU01
21
20
15
10
5
DU06
RU04
CU02
CU01
XU01
RU01
QU73
DU71
RU71
RU15
RU21
QU20
DU11
8
JY03
CU04
8
JY02
WM93
WM91
8
1
3
WM92
5
DM02
DM01
QU94
RU94
RU11
QU92
QU93
DU96
DU97
RU91
RU92
RU93
DU98
QM34
GND

(P883) Power Transf. Conneсltor P.W. Board

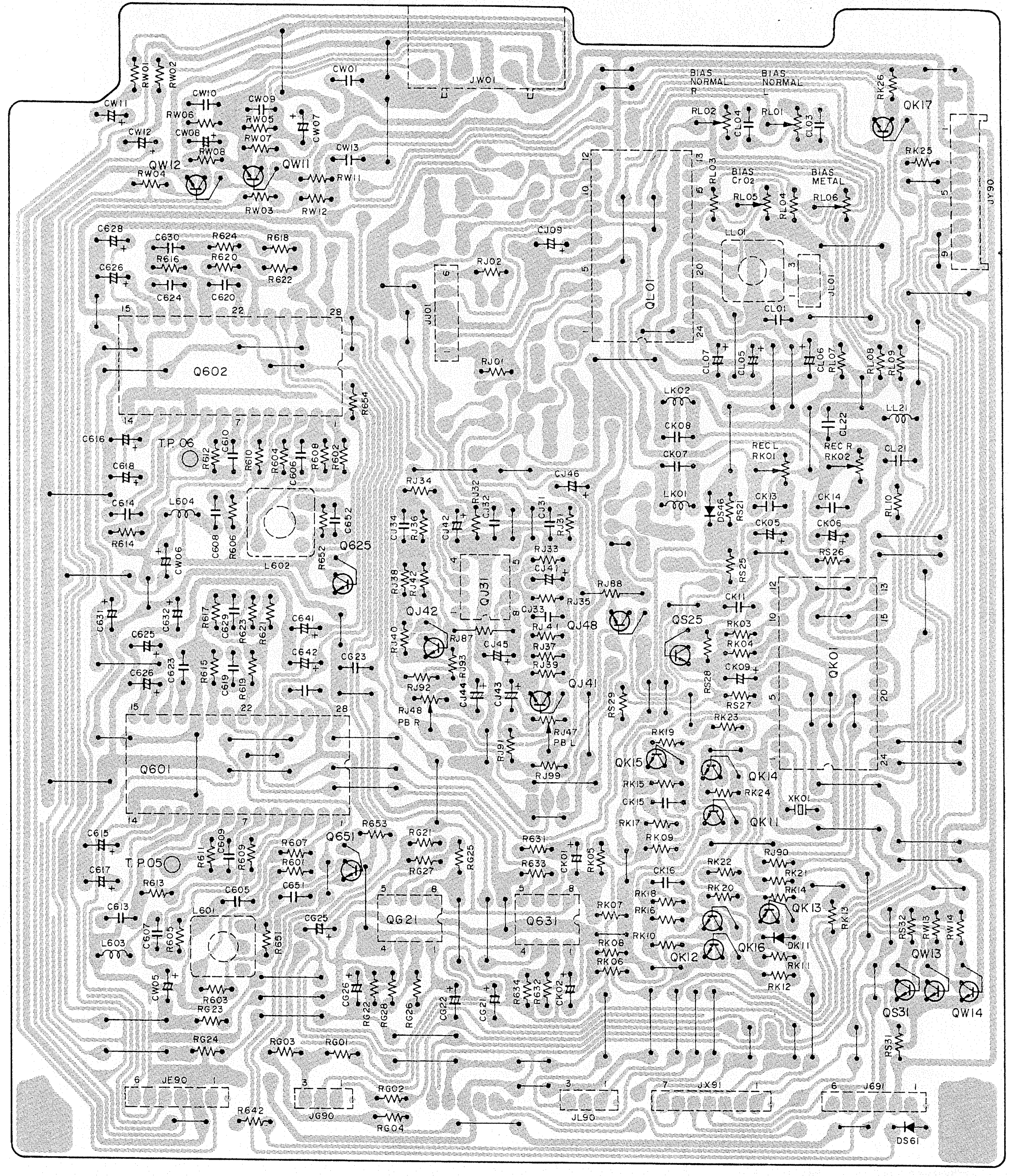

6
W801
1
11
10
9
8
7
6
F
F
G

P833

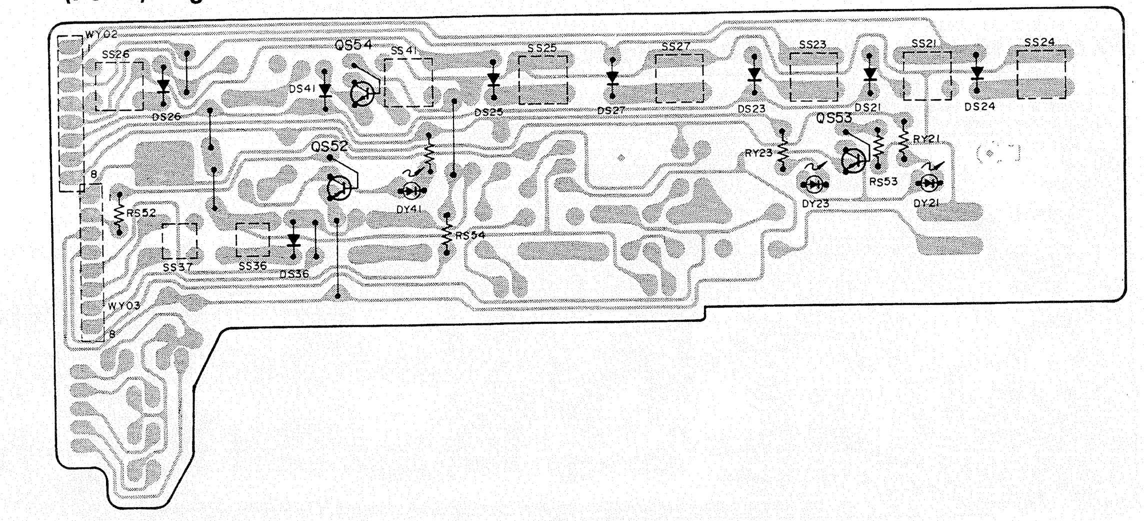

J853
J851
C851
J854
J852
S851

11. PARTS LOCATION (Pattern Side)

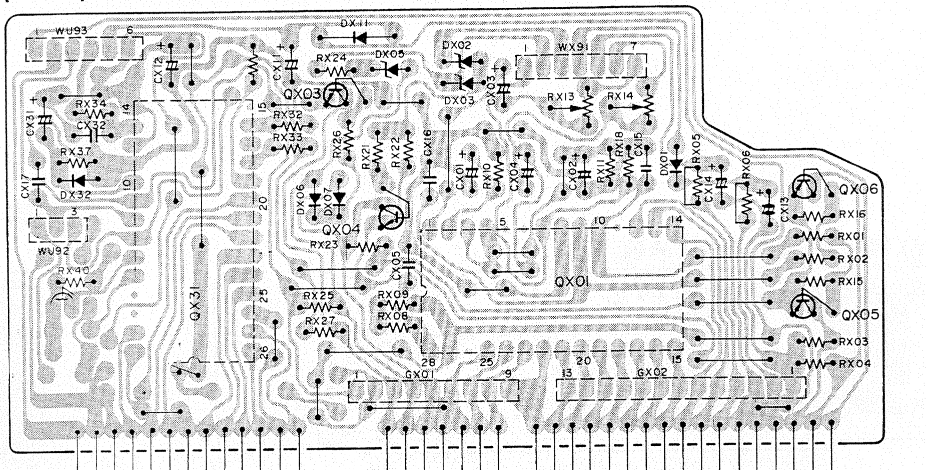
(PJ 03) Audio Main P.W. Board


RW01
RW02
CW11
CW10
CW09
CW01
JW01
RW06
RW05
CW07
CW12
CW08
RW07
RW08
CW13
QW12
RW04
QW11
RW11
RW03
RW12
BIAS NORMAL
BIAS NORMAL
RK26
QK17
RL02
CL04
RL01
CL03
RK25
JY90
BIAS CrO2
BIAS METAL
RL03
RL05
RL04
RL06
LL01
JL01
QL01
C628
C630
R624
R618
CJ09
C626
R616
R620
R622
RJ02
JJ01
C624
C620
Q602
R654
RJ01
CL01
CL07
CL05
CL06
RL07
RL08
RL09
LK02
LL21
CK08
CL22
C616
T.P.06
R612
C610
R610
R604
C606
R608
R602
CK07
REC L RK01
REC R RK02
CL21
C618
RJ34
CJ46
C614
L604
LK01
DS46
RS21
CK13
CK14
RL10
R614
C608
R606
C652
CJ34
RJ36
CJ42
RJ32
CJ32
CJ31
RJ31
CK05
CK06
CW06
L602
R652
Q625
RJ33
RS25
RS26
RJ38
RJ42
QJ31
RJ88
CK11
RJ35
QK01
C631
C632
R617
C629
R623
R621
C641
QJ42
CJ33
RJ41
QJ48
QS25
RK03
RK04
C625
C642
C623
RJ40
RJ87
CJ45
RJ37
RS28
CK09
C626
R615
C619
R619
RJ93
RJ39
QJ41
RJ92
CJ44
CJ43
RS29
RS27
RJ48 PB R
RJ47 PB L
RK23
Q601
RJ91
RK19
RJ99
QK15
QK14
RK15
RK24
CK15
XK01
RK17
QK11
C615
R653
RG21
Q651
R631
RK09
RJ90
C617
T.P05
R611
C609
R609
R607
R601
RG27
R625
R633
CK01
RK05
CK16
RK22
RK21
R613
C605
C651
RK20
RK14
RK18
RK16
QK13
RK13
C613
L601
CG25
QG21
Q631
RK07
RK10
DK11
RS32
RW13
RW14
C607
R605
R651
RK08
RK06
QK12
QK16
RK11
QW13
L603
CW05
R603
RG23
CG26
RG22
RG28
RG26
CG22
CG21
R634
R632
CK02
RK12
QS31
QW14
RG24
RG03
RG01
RS31
JE90
JG90
RG02
R642
RG04
JL90
JX91
J691
DS61

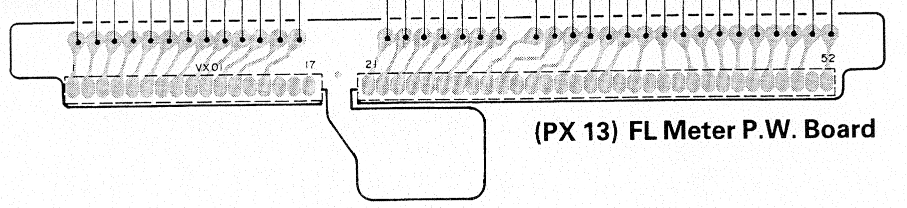
(PS 03) Logic Switch/LED indicator P.W. Board


WY02
SS26
DS26
DS41
QS54
SS41
SS25
DS25
SS27
DS27
SS23
DS23
QS53
SS21
DS21
SS24
DS24
RY21
RY23
RS53
DY23
DY21
QS52
DY41
R552
RS54
SS37
SS36
DS36
WY03
8

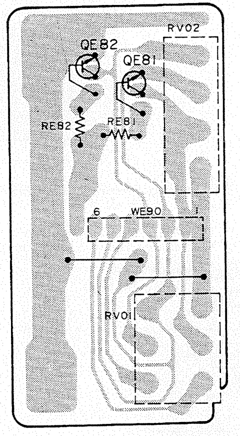
(PX 03) FL Meter/Counter Driver P.W. Board


WU93
CX12
CX11
DX11
RX24
DX05
DX02
WX91
QX03
DX03
RX13
RX14
RX34
CX33
RX32
RX33
RX37
DX32
CX17
WU92
RX40
QX31
QX04
RX23
RX25
RX09
RX27
RX08
QX01
GX01
GX02
QX06
RX16
RX01
RX02
RX15
QX05
RX03
RX04
CX13

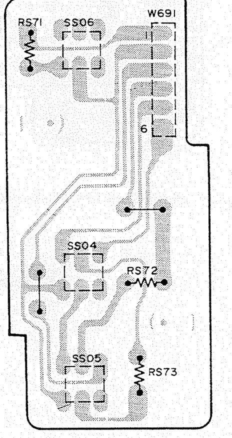
(PX 13) FL Meter P.W. Board


VX01
1
17
21
52

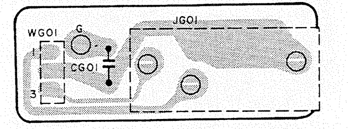
(PJ 43) Rec Volume P.W. Board


QE82
QE81
RV02
RE82
RE81
WE90
RV01

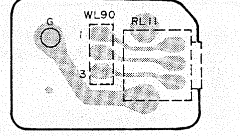
(PJ 33) NR Switch/MPX Switch P.W. Board


RS71
SS06
W691
SS04
RS72
SS05
RS73

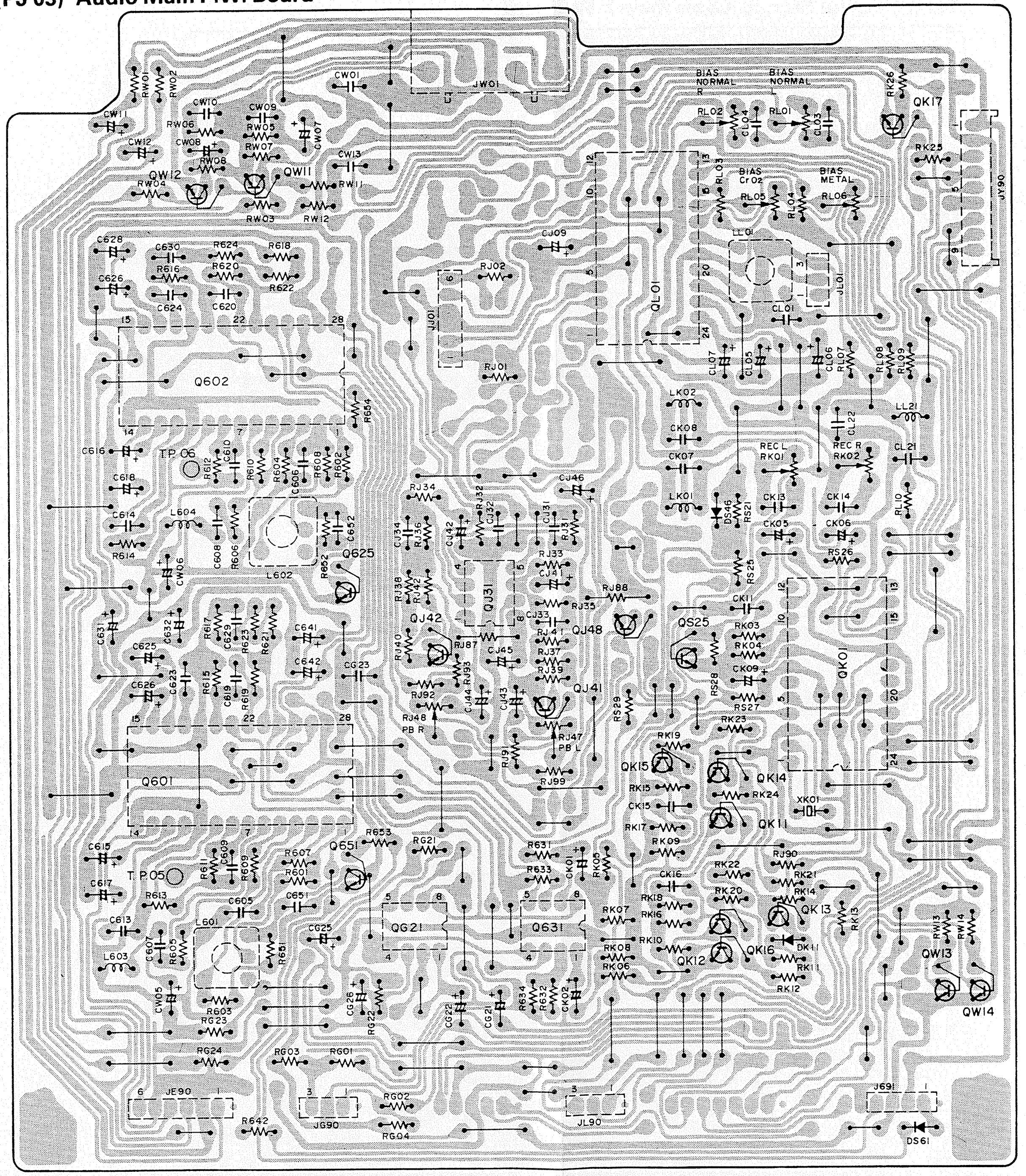
(PG 03) Headphone Jack P.W. Board


WG01
CG01
JG01
G

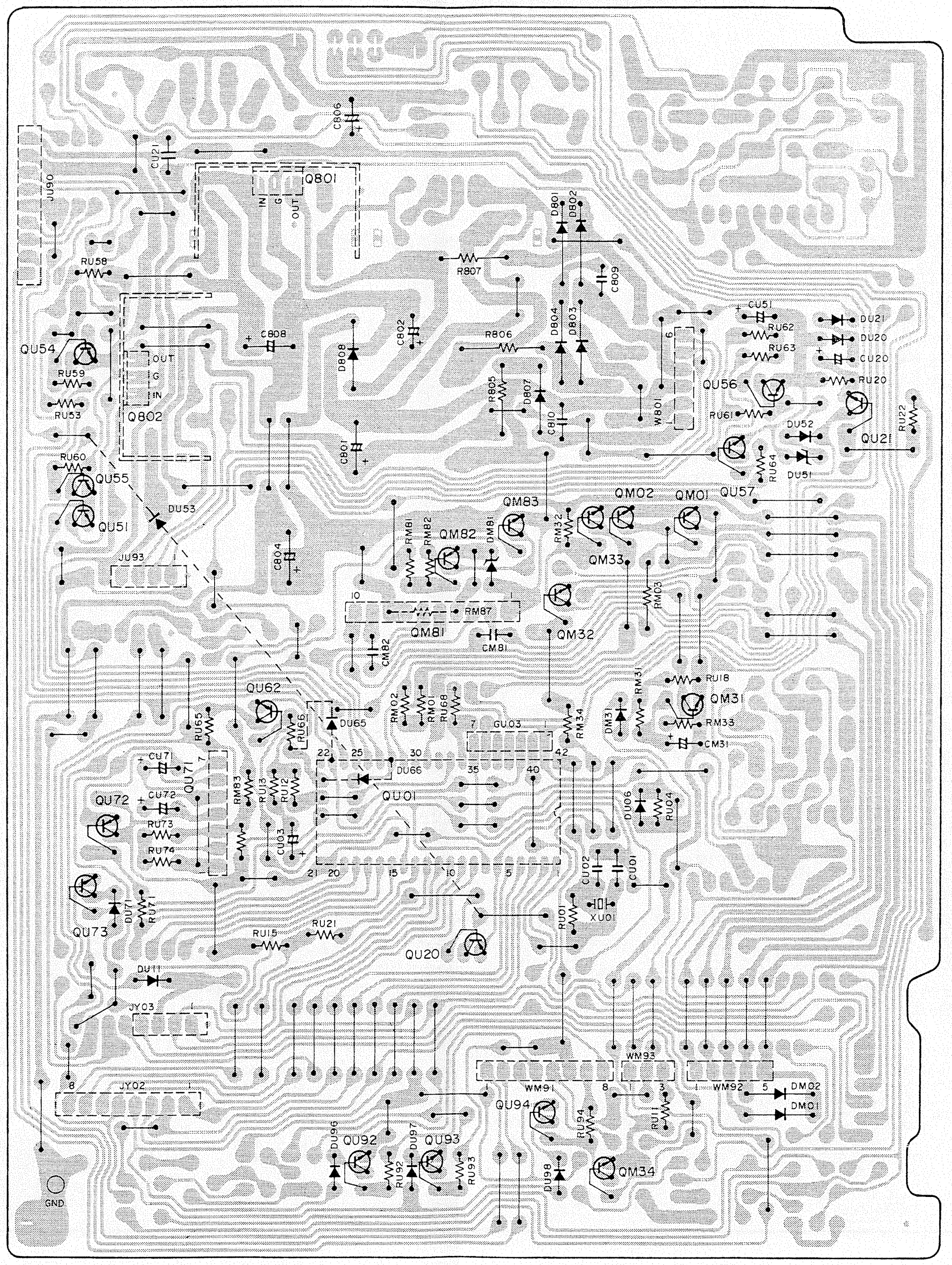
(PJ 23) Bias Fine Volume P.W. Board



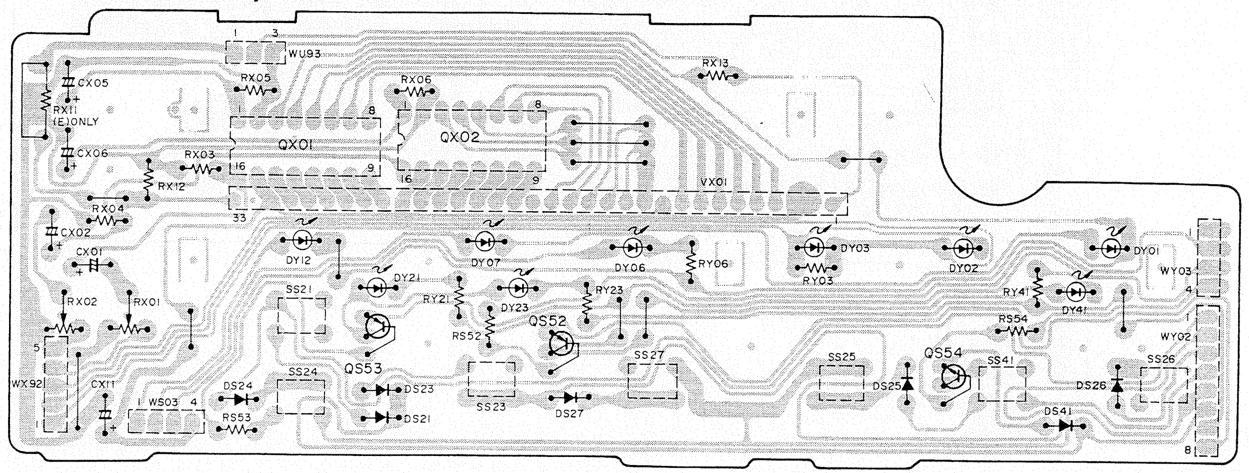
(PJ 03) Audio Main P.W. Board


JW01
CW01
RW01
RW02
CW10
CW09
RW06
RW05
CW08
RW07
QW11
QW12
RW04
RW03
RW11
RW12
CW12
CW13
BIAS NORMAL
RL02
RL01
BIAS CrO2
BIAS METAL
RL05
RL06
QK17
RK26
RK25
JY90
QL01
LL01
JL01
CL01
RJ01
RJ02
CJ09
JJ01
Q602
C626
C630
R624
R618
R616
R620
R622
C624
C620
TP.06
L604
Q625
L602
LK02
CK08
CK07
LK01
REC L
RK01
REC R
RK02
LL21
CL21
RL10
QJ42
QJ31
QJ48
QJ41
QS25
QK01
RK03
RK04
RJ88
Q601
TP.05
L601
L603
Q651
QG21
Q631
QK15
QK14
QK11
QK13
QK16
QK12
XK01
RK24
QW13
QW14
JE90
JG90
JL90
J691
DS61
R642
RG02
RG04
RG24
RG03
RG01
R603

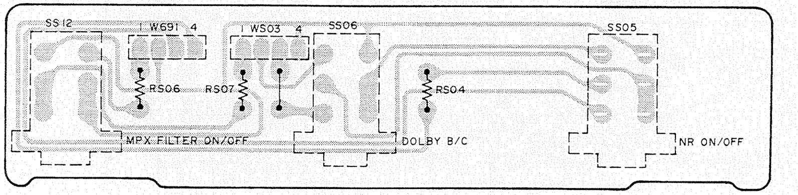
(PU 03) Power Supply/Logic Main P.W. Board


JU90
CU21
C806
Q801
IN
G
OUT
D801
D802
R807
C809
RU58
C808
C802
D808
R806
D804
D803
CU51
RU62
RU63
DU21
DU20
CU20
RU20
QU54
RU59
RU53
OUT
G
IN
Q802
R805
D807
C810
W801
QU56
RU61
RU22
QU21
C801
DU52
DU51
RU64
RU60
QU55
QU51
DU53
JU93
C804
QM83
QM82
RM81
RM82
DM81
RM32
QM02
QM01
QU57
QM33
RM03
RM87
QM81
CM82
CM81
QM32
QU62
RU56
DU65
RM02
RM01
RM04
RM06
DU66
GU03
RU18
RM31
DM31
QM31
RM33
RM34
CM31
CU71
QU71
RM83
RU14
RU12
QU72
CU72
RU73
RU74
CU03
QU01
DU06
RU04
CU02
CU01
XU01
RU01
QU73
DU71
RU71
RU21
RU15
QU20
DU11
JY03
JY02
GND
WM91
WM93
WM92
DM02
DM01
QU94
RU94
RU95
QU92
QU93
DU96
DU97
RU92
RU93
DU98
QM34

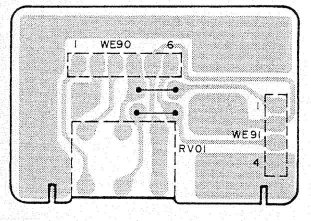
(PX 03) FL Meter/Key Switch/LED P.W. Board


WU93
RX13
CX05
RX11
(E)ONLY
RX05
RX06
CX06
QX01
QX02
RX03
RX12
VX01
RX04
CX02
CX01
DY12
DY07
DY06
RY06
DY03
RY03
DY02
DY01
WY03
DY21
RY21
DY23
RY23
QS52
RY41
DY41
RS54
WY02
RX02
RX01
SS21
RS52
SS27
SS25
QS54
SS26
WX92
CX11
WS03
DS24
SS24
QS53
DS23
SS23
DS27
DS25
SS41
DS26
DS41
RS53
DS21

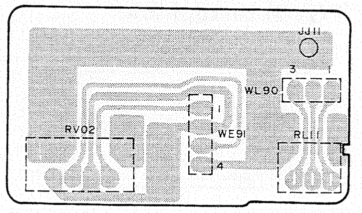
(PS 03) NR ON/OFF/MPX P.W. Board


SS12
W691
WS03
SS06
SS05
RS06
RS07
RS04
MPX FILTER ON/OFF
DOLBY B/C
NR ON/OFF

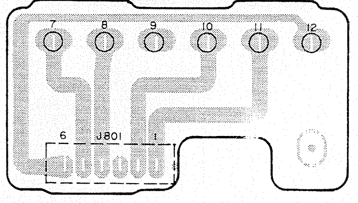
(PJ 43) Rec Volume P.W. Board


WE90
WE91
RV01

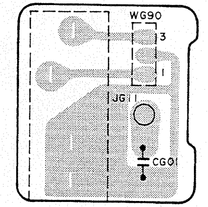
(PJ 23) Bias Fine Volume P.W. Board


JJ11
WL90
RV02
WE91
RL11

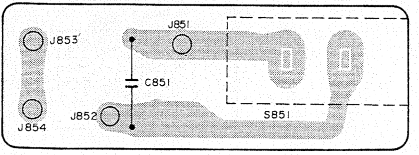
(P883) Power Switch P.W. Board (N.T.A Only)


7
8
9
10
11
12
6
J801
1

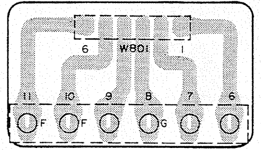
(PG 03) Headphone Jack P.W. Board


WG90
JG11
CG01

(P833) Power Switch P.W. Board

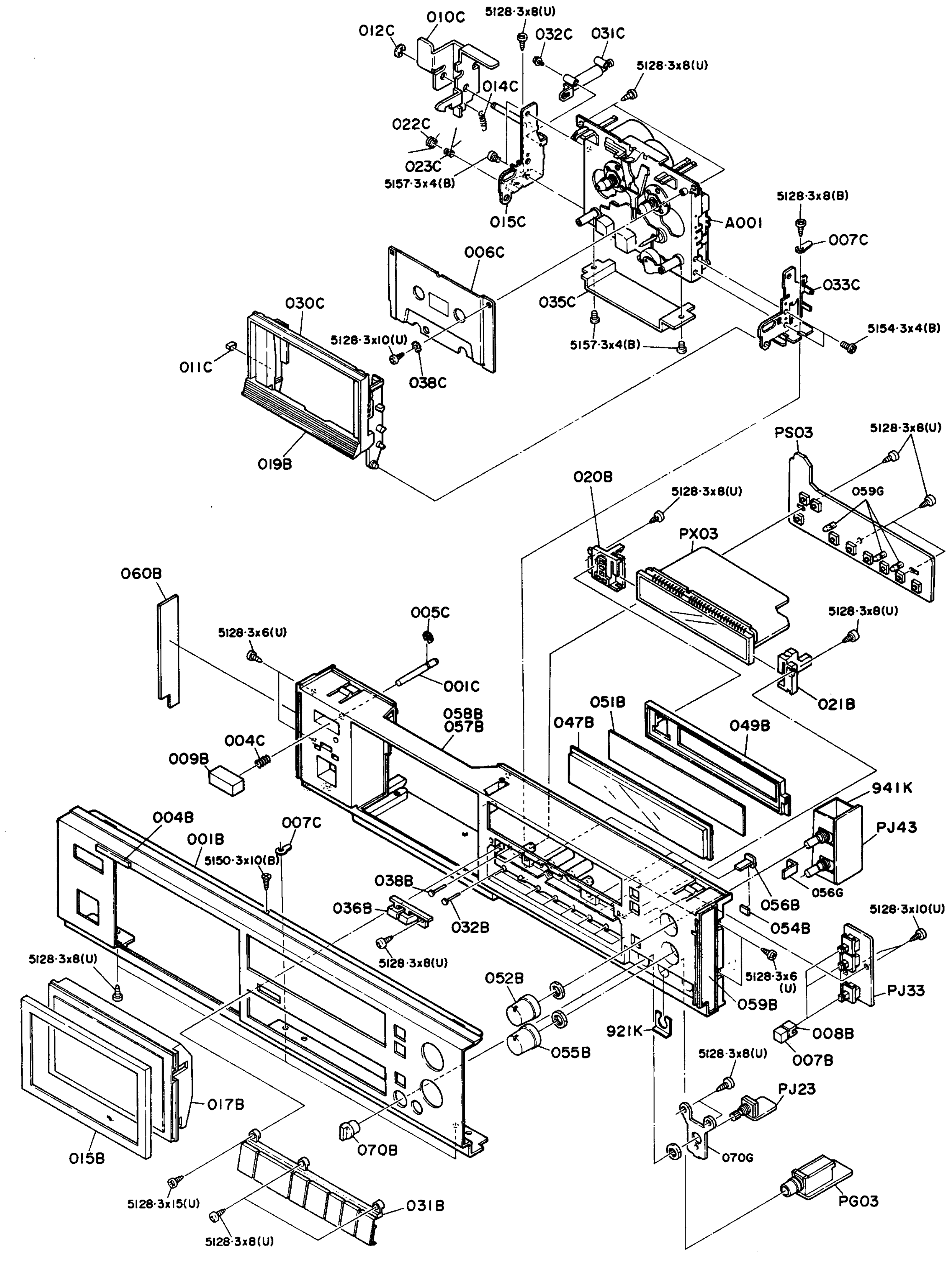

J853
J851
C851
J852
J854
S851

(P883) Power Transf. Connector P.W. Board (E Only)


W801
11
10
9
8
7
6

12. EXPLODED VIEWS AND PARTS LIST

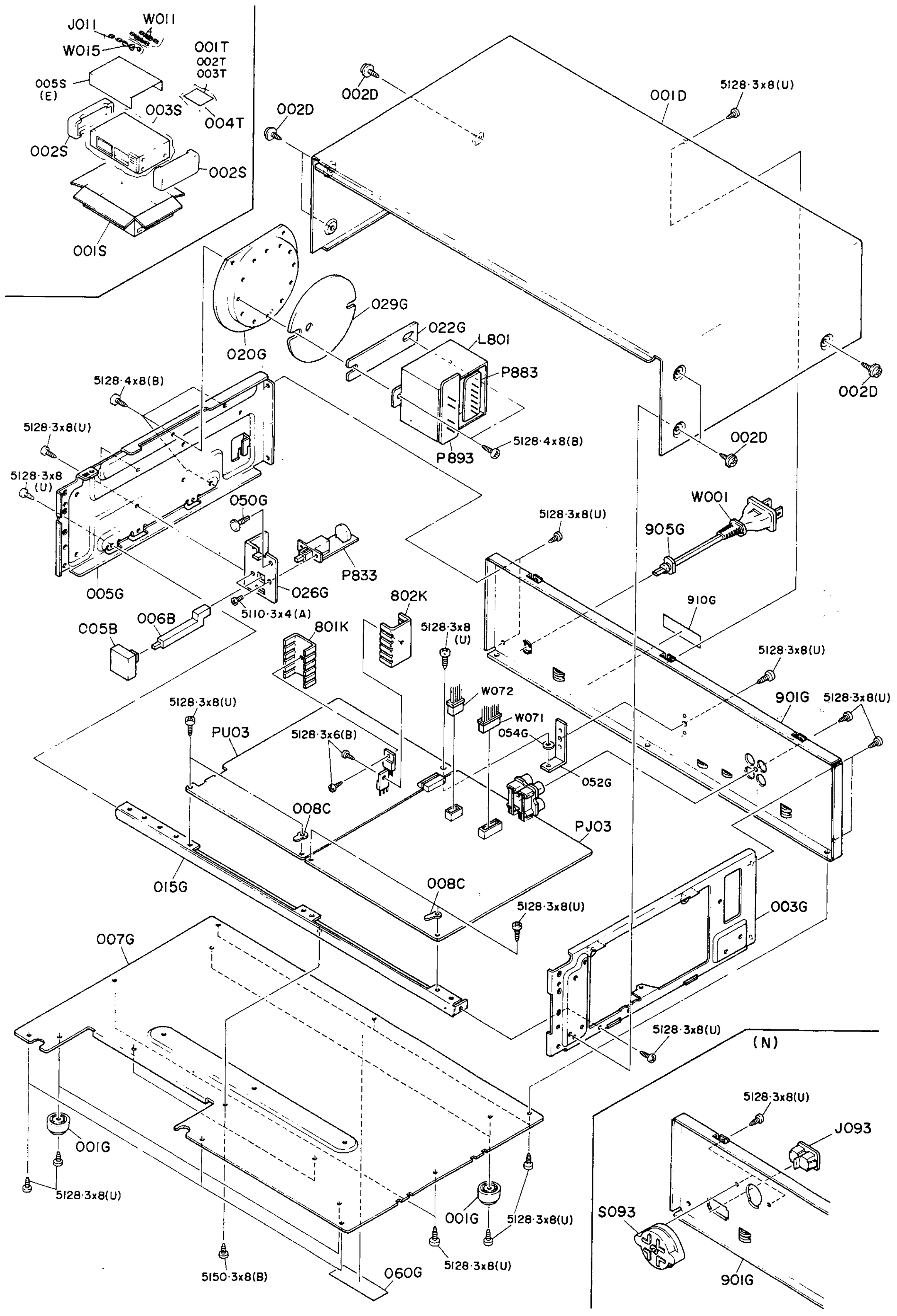
[P01-99] FRONT PANEL AND ASSOCIATED MECHANISM FOR CASSETTE TAPE OPERATION


010C
5128·3x8(U)
012C
032C
031C
5128·3x8(U)
014C
022C
023C
5157·3x4(B)
015C
5128·3x8(B)
A001
007C
006C
033C
030C
035C
5128·3x10(U)
5157·3x4(B)
5154·3x4(B)
011C
038C
019B
PS03
5128·3x8(U)
020B
5128·3x8(U)
059G
PX03
060B
005C
5128·3x8(U)
5128·3x6(U)
001C
021B
051B
058B
057B
047B
049B
004C
009B
941K
PJ43
004B
007C
001B
5150·3x10(B)
038B
056B
056G
036B
032B
054B
5128·3x10(U)
5128·3x8(U)
5128·3x8(U)
052B
5128·3x6 (U)
059B
PJ33
921K
008B
055B
5128·3x8(U)
007B
PJ23
017B
015B
070B
070G
5128·3x15(U)
031B
PG03
5128·3x8(U)

REF. DESIG.	PART NO.	DESCRIPTION
001B	4822 426 51188	Front Panel, (Black) [N, E]
	4822 426 51187	Front Panel, (Gold) [E]
004B	4822 454 11825	Badge
007B	4822 410 24643	Button, Select; (Black) [N, E]
	4822 410 24639	Button, Select; (Gold) [E]
008B	4822 403 20219	Joint, Select Button
009B	4822 410 24515	Button, Eject; (Black) [N, E]
	4822 410 24511	Button, Eject; (Gold) [E]
015B	4822 454 11481	Escutcheon, Cassette; (Black) [N, E]
	4822 454 11478	Escutcheon, Cassette; (Gold) [E]
017B	4822 450 60925	Window, Cassette Case
019B	4822 403 53152	Retainer, Cassette Case
020B	4822 459 80375	Bushing, FL (L)
021B	4822 459 80376	Bushing, FL (R)
031B	4822 410 25601	Button, Mecha; (Black) [N, E]
	4822 410 25779	Button, Mecha; (Gold) [E]
032B	4822 535 71094	Pin, Mecha Button
036B	4822 410 25602	Button, Select; (Black) [N, E]
	4822 410 25781	Button, Select; (Gold) [E]
038B	4822 535 71094	Pin, Select Button
047B	4822 459 20355	Window, Level
049B	4822 459 40585	Cover, Level
051B	4822 454 20664	Indicator, Level; (Black) [N, E]
	4822 454 20698	Indicator, Level; (Gold) [E]
052B	4822 412 20091	Knob, Rec Level; (Black) [N, E]
	4822 412 20092	Knob, Rec Level; (Gold) [E]
054B	4822 466 61567	Buffer, Function Lens
055B	4822 412 20091	Knob, Rec Barance; (Black) [N, E]
	4822 412 20092	Knob, Rec Barance; (Gold) [E]
056B	4822 381 10795	Lens, Mecha Function
057B	4822 443 50976	Chassis, Front (Black) [N, E]
058B	4822 443 50976	Chassis, Front (Gold) [E]
059B	4822 443 40295	Escutcheon, Cap (R); (Gold) [E]
060B	4822 443 40294	Escutcheon, Cap (L); (Gold) [E]
070B	4822 412 20999	Knob, Bias

REF. DESIG.	PART NO.	DESCRIPTION
001C	4822 535 91993	Pin, Eject; (Black) [N, E]
	4822 535 91994	Pin, Eject; (Gold) [E]
004C	4822 492 51692	Spring, Eject
005C	4822 532 11295	RG Ring, E Type $\phi 3$
006C	4822 454 11914	Escutcheon, Mecha
007C	4822 290 30276	Lug
010C	4822 403 53072	Hook, Cassette Case
011C	4822 492 63414	Leaf Spring
012C	4822 532 11295	RG Ring, E Type $\phi 3$
014C	4822 492 32672	Spring
015C	4822 403 20218	Bracket (K), Mecha; Left
022C	4822 492 41643	Spring, Door Open
023C	4822 492 41644	Spring, Cassette Open
030C	4822 459 20391	Door Assembly
031C	4822 464 50528	Dumper
032C	4822 502 12557	Screw
033C	4822 532 11443	Retainer, Mecha; Right
035C	4822 466 30178	Shield, Mecha Head
038C	4822 532 11388	T.L. Washer, OR
921K	4822 462 41037	Stopper, Headphone Jack
941K	4822 403 52845	Shield, Volume
A001	4822 464 50671	Mechanism Assembly

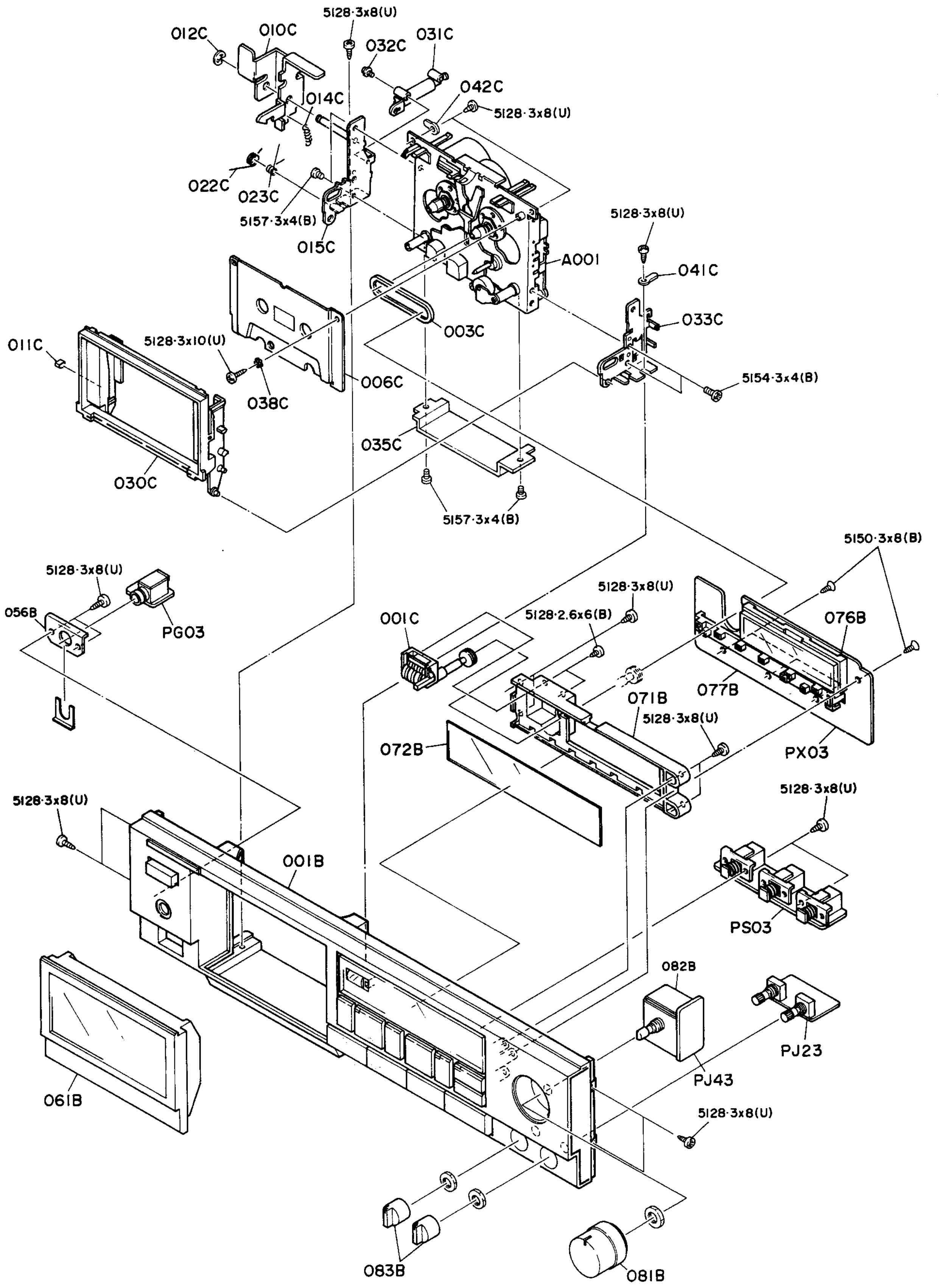
[P02-99] LID (TOP & BOTTOM COVER), REAR PANEL, GENERAL PARTS AND PACKING MATERIALS


J011
W011
W015
001T
002T
003T
005S
(E)
003S
004T
002S
002S
001S
002D
002D
001D
5128·3x8(U)
029G
022G
L801
020G
P883
002D
5128·4x8(B)
5128·3x8(U)
5128·3x8
(U)
P893
5128·4x8(B)
002D
050G
W001
5128·3x8(U)
905G
P833
005G
026G
5110·3x4(A)
802K
910G
C05B
006B
801K
5128·3x8
(U)
5128·3x8(U)
W072
W071
054G
901G
5128·3x8(U)
5128·3x8(U)
PU03
5128·3x6(B)
052G
008C
PJ03
015G
008C
5128·3x8(U)
003G
007G
5128·3x8(U)
(N)
5128·3x8(U)
J093
001G
5128·3x8(U)
S093
001G
5128·3x8(U)
5128·3x8(U)
5150·3x8(B)
060G
901G

REF. DESIG.	PART NO.	DESCRIPTION
005B	4822 410 24514	Button, Power; (Black) [N, E]
	4822 410 24509	Button, Power; (Gold) [E]
006B	4822 278 80239	Link, Power Button
008C	4822 290 30276	Lug
001D	4822 426 50851	Lid, Top Cover; (Black) [N, E]
	4822 426 50849	Lid, Top Cover; (Gold) [E]
002D	4822 502 12501	B.T. Screw B4 x 8
001G	4822 462 71361	Leg
003G	4822 464 70418	Chassis (R)
005G	4822 464 70419	Chassis (L)
007G	4822 426 60516	Lid, Bottom Cover
015G	4822 403 53073	Stay, Center
020G	4822 403 53074	Bracket, Transformer
022G	4822 401 11003	Clamper, Transformer
026G	4822 403 53075	Bracket, Power Switch
029G	4822 454 11298	Shield, Transformer
050G	4822 535 71081	Spacer, Eject Hook
060G	4822 600 70229	Label, Caution
901G	4822 426 20115	Rear Panel [N]
	4822 426 20116	Rear Panel [E]
905G	4822 532 51314	Bushing, AC Power Cord [E]
801K	4822 255 40532	Heatsink (Q801)
802K	4822 255 40532	Heatsink (Q802)
⚠ J093	4822 265 20222	Plug, AC Inlet [N]
⚠ L801	4822 146 40392	Power Transformer [N]
	4822 148 80744	Power Transformer [E]
⚠ S093	4822 272 10236	Voltage Selector [N]
	4822 272 10235	Voltage Selector [E]
⚠ W001	4822 321 10429	A.C. Power Cord [E]

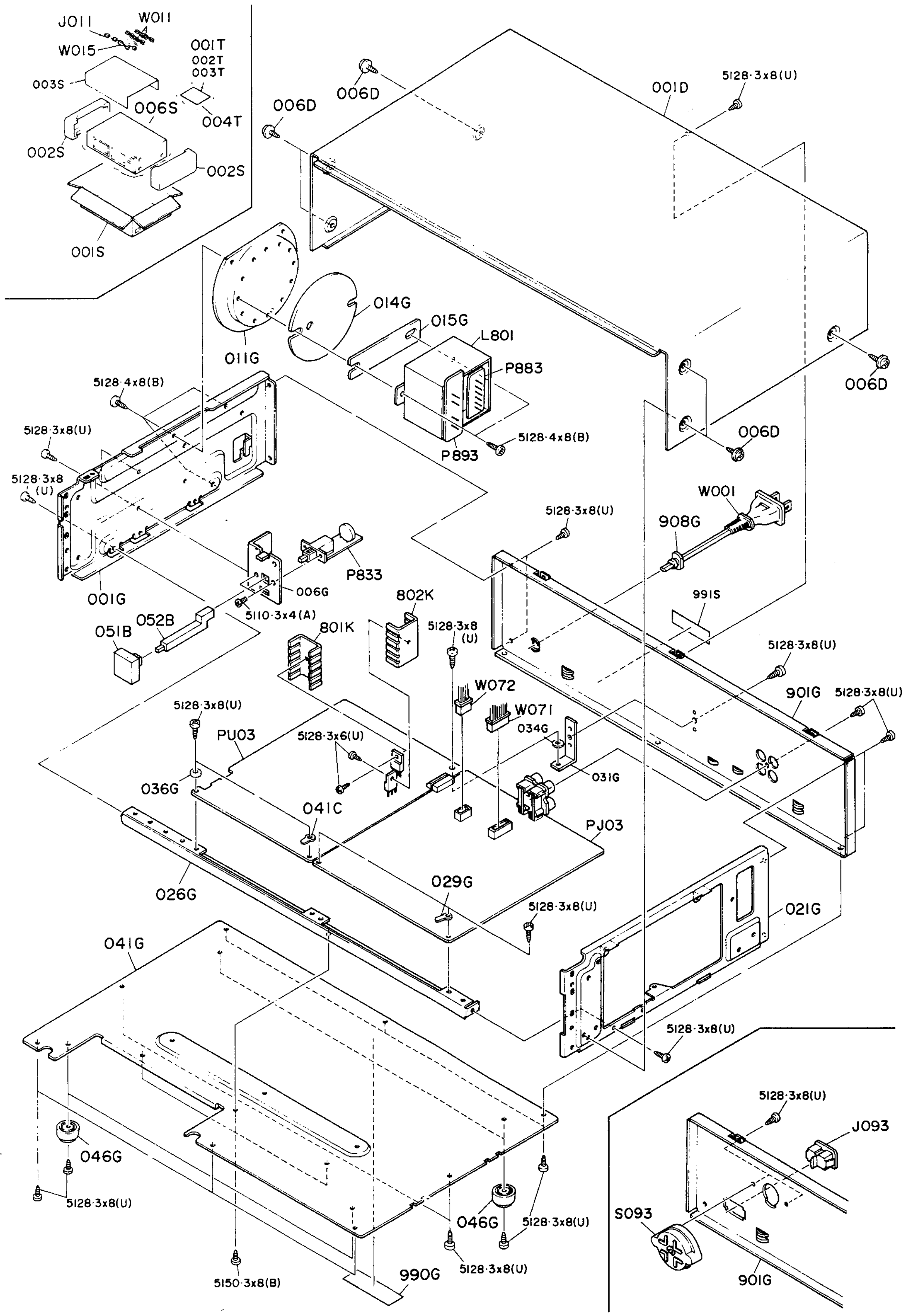
REF. DESIG.	PART NO.	DESCRIPTION
		PACKING
001S	4822 600 70469	Packing Case [N]
002S	4822 600 70464	Cushion
003S	4822 600 70347	Polyethylene Sheet
001T	4822 736 13573	User Manual
004T	4822 600 70363	Polyethylene Bag
J011	4822 265 10092	Jack, AC Adaptor [E]
W011	4822 321 21438	Connective Cord, RCA
⚠ W015	4822 321 21123	A.C. Power Cord [N]

[P01-99] FRONT PANEL AND ASSOCIATED MECHANISM FOR CASSETTE TAPE OPERATION


5128·3x8(U)
012C
010C
032C
031C
014C
042C
5128·3x8(U)
022C
023C
5157·3x4(B)
015C
A001
5128·3x8(U)
041C
033C
003C
011C
5128·3x10(U)
038C
006C
5154·3x4(B)
030C
035C
5157·3x4(B)
5150·3x8(B)
5128·3x8(U)
056B
PG03
5128·3x8(U)
001C
5128·2.6x6(B)
076B
071B
077B
5128·3x8(U)
072B
PX03
5128·3x8(U)
5128·3x8(U)
001B
PS03
082B
PJ23
PJ43
5128·3x8(U)
061B
083B
081B

REF. DESIG.	PART NO.	DESCRIPTION
001B	4822 426 51186	Front Panel Assembly
061B	4822 443 51015	Cover, Cassette Case
071B	4822 256 91204	Holder
072B	4822 454 20702	Indicator, FL
076B	4822 256 91205	Holder, FL
077B	4822 256 91206	Holder, LED
081B	4822 412 20989	Knob, Rec Volume
083B	4822 412 20157	Knob, Balance/Bias
001C	4822 349 50309	Counter, Tape
003C	4822 358 30519	Belt, Counter
006C	4822 454 11914	Escutcheon, Mecha
010C	4822 403 53072	Hook, Cassette Case Lock
011C	4822 492 63414	Leaf Spring
012C	4822 532 11295	RG Ring, E Type ϕ3
014C	4822 492 32672	Spring
015C	4822 403 20218	Bracket (K), Mecha
022C	4822 492 41643	Spring, Door Open
023C	4822 492 41644	Spring, Cassette Open
030C	4822 459 20391	Door Assembly, Cassette
031C	4822 464 50528	Dumper
032C	4822 502 12557	Screw, Dumper
033C	4822 532 11443	Retainer (R) Mecha
035C	4822 466 30178	Shield, Mecha Head
038C	4822 532 11388	T.L. Washer, OR
041C	4822 290 30266	Lug
042C	4822 290 30266	Lug
A001	4822 464 50671	Mechanism Assembly

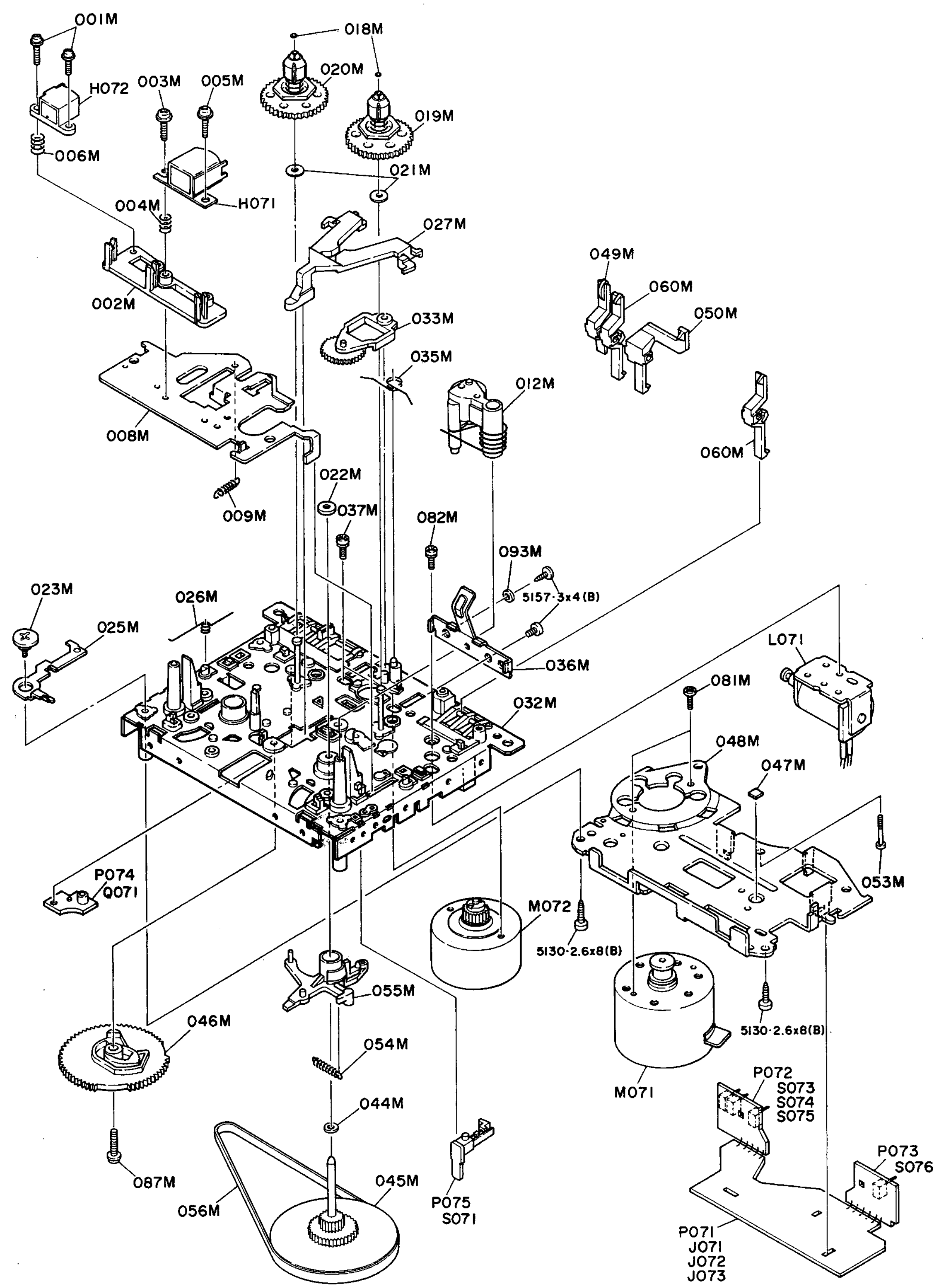
[P02-99] LID (TOP & BOTTOM COVER), REAL PANEL, GENERAL PARTS AND PACKING MATERIALS


J011
W011
W015
001T
002T
003T
003S
006S
004T
002S
002S
001S
006D
006D
001D
5128·3x8(U)
014G
015G
L801
P883
011G
006D
5128·4x8(B)
5128·3x8(U)
5128·3x8 (U)
P893
5128·4x8(B)
006D
W001
908G
5128·3x8(U)
P833
001G
006G
802K
991S
5110·3x4(A)
052B
051B
801K
5128·3x8 (U)
5128·3x8(U)
W072
901G
5128·3x8(U)
W071
034G
5128·3x8(U)
PU03
5128·3x6(U)
036G
031G
041C
PJ03
026G
029G
5128·3x8(U)
021G
041G
5128·3x8(U)
5128·3x8(U)
J093
046G
5128·3x8(U)
046G
5128·3x8(U)
S093
990G
5128·3x8(U)
5150·3x8(B)
901G

REF. DESIG.	PART NO.	DESCRIPTION
051B	4822 410 24635	Button, Power
052B	4822 278 80239	Link, Power Button
041C	4822 290 30266	Lug
001D	4822 426 40366	Lid, Top Cover
006D	4822 501 11008	B.T. Screw B4 x 8
001G	4822 464 70419	Chassis (L)
011G	4822 403 53074	Bracket, Transformer
014G	4822 454 11298	Shield, Transformer
015G	4822 401 11003	Clamper, Transformer
021G	4822 464 70418	Chassis (R)
026G	4822 403 53073	Stay, Center
029G	4822 290 30266	Lug
036G	4822 532 21196	Flat Washer, L.
041G	4822 426 60516	Lid, Bottom Cover
046G	4822 462 71361	Leg
901G	4822 426 20113	Rear Panel [N]
	4822 426 20114	Rear Panel [E]
908G	4822 532 51314	Bushing, AC Power Cord [E]
990G	4822 600 70229	Label, Caution
⚠J093	4822 265 20222	Plug, AC Inlet [N]
⚠L801	4822 148 60167	Power Transformer [N]
	4822 148 80744	Power Transformer [E]
⚠S093	4822 272 10235	Voltage Selector [E]
	4822 272 10236	Voltage Selector [N]
⚠W001	4822 321 10429	A.C. Power Cord [E]
801K	4822 255 40532	Heatsink
802K	4822 255 40532	Heatsink

REF. DESIG.	PART NO.	DESCRIPTION
		PACKING
001S	4822 600 70468	Packing Case [N]
002S	4822 600 70464	Cushion
006S	4822 600 70347	Polyethylene Sheet
001T	4822 736 13572	User Manual
004T	4822 600 70363	Polyethylene Bag
J011	4822 265 10092	Jack, AC Adaptor [E]
W011	4822 321 21438	Connective Cord, RCA
⚠W015	4822 321 21123	A.C. Power Cord, [N]

[P03-99] PARTS ASSEMBLED ON THE TOP AND REVERSE OF CHASSIS


001M
018M
020M
H072
003M
005M
019M
006M
021M
004M
H071
027M
002M
049M
060M
050M
033M
035M
012M
008M
060M
022M
009M
037M
082M
093M
5157·3x4(B)
023M
026M
025M
L071
036M
081M
032M
048M
047M
053M
P074
Q071
M072
5130·2.6x8(B)
055M
046M
5130·2.6x8(B)
054M
M071
P072
S073
S074
S075
044M
P073
S076
087M
045M
056M
P075
S071
P071
J071
J072
J073

REF. DESIG.	PART NO.	DESCRIPTION
001M	4822 502 12818	Screw, Erase Head
002M	4822 403 53076	Bracket, Head
003M	4822 502 12818	Screw, Azimus
004M	4822 492 51905	Spring, Azimus
005M	4822 502 12818	Screw, R/P Head
006M	4822 492 51905	Spring, Hight Adj.
008M	4822 464 50642	Chassis, Head
009M	4822 492 41677	Spring
012M	4822 403 40483	Pinch Roller S
018M	4822 535 71232	Spacer, Reel
019M	4822 528 10588	Table S, Supply Reel
020M	4822 528 10589	Table S, Take-up Reel
021M	4822 502 12167	Washer, Reel
022M	4822 535 71101	Spacer, Oil Fense
023M	4822 502 12922	Screw, Eject Lock Arm
025M	4822 403 40307	Arm, Eject Lock
026M	4822 492 41683	Spring, Eject Lock
027M	4822 403 52695	Lever, Hold
032M	4822 464 50683	Chassis S, Main
033M	4822 403 40306	Idler S
035M	4822 492 41684	Spring, Hold Lever
036M	4822 492 41689	Leaf Spring, Cassette Hold
037M	4822 502 12427	L. Washer Screw L2.6 x 6
044M	4822 532 11398	Washer, Flywheel
045M	4822 528 60323	Flywheel Assembly
046M	4822 522 32357	Gear
047M	4822 535 71233	Spacer
048M	4822 403 53224	Bracket
049M	4822 403 52696	Lever, Pack
050M	4822 403 52697	Lever, Metal
053M	4822 502 12923	Screw, Earth
054M	4822 492 32761	Spring, Play Arm
055M	4822 403 53223	Arm S, Play
056M	4822 358 20263	Belt, Main
060M	4822 403 52698	Lever, Anti Rec/CrO$_2$
081M	4822 532 11594	L. Washer Screw L2.6 x 3
082M	4822 532 11594	L. Washer Screw L2.6 x 3
087M	4822 502 12892	Screw, Cam Gear
093M	4822 532 11593	Washer

REF. DESIG.	PART NO.	DESCRIPTION
H071	4822 249 10333	Head, Rec/Play
H072	4822 249 40194	Head, Erase
J071	4822 265 10064	Jack, 7P
J072	4822 265 10061	Jack, 5P
J073	4822 265 10062	Jack, 3P
L071	4822 157 53126	Solenoid Coil
M071	4822 361 60408	D.C. Motor, Main
M072	4822 361 60457	D.C. Motor, F/R
Q071	4822 130 10023	Photo Unit
S071	4822 277 21151	Mini Switch, Play
S073	4822 276 12258	Push Switch, Cassette
S074	4822 276 12258	Push Switch, Anti Rec
S075	4822 276 12258	Push Switch, Metal
S076	4822 276 12258	Push Switch, CrO$_2$

13. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR
R***: (1) GD05 --- 140, Carbon film fixed resistor, ±5%, 1/4W
R***: (2) GD05 --- 160, Carbon film fixed resistor, ±5%, 1/6W
① — Resistance value

Examples
① Resistance value
0.1Ω...001 10Ω...100 1kΩ...102 100kΩ...104
0.5Ω...005 18Ω...180 2.7kΩ...272 680kΩ...684
1Ω...010 100Ω...101 10kΩ...103 1MkΩ...105
6.8Ω...068 390Ω...391 22kΩ...223 4.7MkΩ...475

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.
(1) DD1 - --- 370, Ceramic condenser
Disc type
①② Temp. coeff. P350 ~ N1000, 50V
Capacity value
Tolerance

Examples
① Tolerance (Capacity deviation)
±0.25pF...0
±0.5pF...1
±5%...5

* Tolerance of COMMON PARTS handled here are as follows:
0.5pF ~ 5pF...±0.25pF
6pF ~ 10pF...±0.5pF
12pF ~ 560pF...±5%

② Capacity value
0.5pF...005 3pF...030 100pF...101
1pF...010 10pF...100 220pF...221
1.5pF...015 47pF...470 560pF...561

C***: CERAMIC CAP.
(1) DK16 --- 300, High dielectric constant ceramic condenser
Disc type
① Temp. chara. 2B4, 50V
Capacity value

Example
② Capacity value
100pF...101 1000pF...102 10000pF...103
470pF...471 2200pF...222

C***: ELECTROLY CAP. (⊥), FILM CAP. (⊥)
(1) EA ------ 10, Electrolytic condenser
One-way lead type, Tolerance ±20%
① ②
Dielectric strength
Capacity value

Examples
① Capacity value
0.1μF...104 4.7μF...475 100μF...107
0.33μF...334 10μF...106 330μF...337
1μF...105 22μF...226 1100μF...108
2200μF...228

② Working voltage
6.3V...006 25V...025
10V...010 35V...035
16V...016 50V...050

(2) DF15 --- 350, Plastic film condenser
One-way type, Mylar ±5% 50V
①
Capacity value

Examples
① Capacity value
0.001μF (1000pF)...102 0.1μF...104
0.0018μF.............182 0.56μF...564
0.01μF.............103 1μF...105
0.015μF.............153

REF. DESIG.	PART NO.	DESCRIPTION
		PG03-HEADPHONE JACK CIRCUIT BOARD [SD-45MKII/SD-35]
CG01	4822 122 40491	Ceramic Cap. 0.022μF +80% −20%
JG01	4822 267 30617	Jack, Headphone; (Black) [N, E]
	4822 264 10132	Jack, Headphone; (Gold) (SD-45MKII) [E]
WG90	4822 323 10081	Jumper Lead, 3P [SD-45MKII]
	4822 323 10142	Jumper Lead, 3P [SD-35]
		PJ03-AUDIO MAIN CIRCUIT BOARD [SD-45MKII/SD-35]
		PJ03-CAPACITORS
C617	4822 124 41188	Elect 0.68μF 50V
C618	4822 124 41188	Elect 0.68μF 50V
C627	4822 124 41188	Elect 0.68μF 50V
C628	4822 124 41188	Elect 0.68μF 50V
C631	4822 124 22039	Elect 220μF 16V
C632	4822 124 22039	Elect 220μF 16V
CG23	4822 122 40491	Ceramic 0.022μF +80% −20%
CJ31	4822 121 43005	Film 820pF ±5%
CJ32	4822 121 43005	Film 820pF ±5%
CJ41	4822 124 90363	Elect 220μF 10V
CJ42	4822 124 90363	Elect 220μF 10V
CJ43	4822 124 90357	Elect 2.2μF 50V
CJ44	4822 124 90357	Elect 2.2μF 50V
CJ45	4822 124 90371	Elect 470μF 10V
CJ46	4822 124 90371	Elect 470μF 10V
CK11	4822 122 32486	Ceramic 0.01μF +80% −20%
CL01	4822 121 42791	Film 4700pF ±5%
CL03	4822 121 42344	Film 220pF ±5%
CL04	4822 121 42344	Film 220pF ±5%
CL21	4822 122 32486	Ceramic 0.01μF +80% −20%
CL22	4822 122 32486	Ceramic 0.01μF +80% −20%
CW01	4822 122 40491	Ceramic 0.022μF +80% −20%
CW05	4822 124 22274	Elect 4.7μF 50V
CW06	4822 124 22274	Elect 4.7μF 50V
CW07	4822 124 22274	Elect 4.7μF 50V
CW08	4822 124 22274	Elect 4.7μF 50V
CW11	4822 124 22274	Elect 4.7μF 50V
CW12	4822 124 22274	Elect 4.7μF 50V
CW13	4822 122 40491	Ceramic 0.022μF +80% −20%
		PJ03-RESISTORS
RJ47	4822 100 11041	10KΩ, Trimming
RJ48	4822 100 11041	10KΩ, Trimming
RK01	4822 100 20545	22KΩ, Trimming
RK02	4822 100 20545	22KΩ, Trimming
RL01	4822 100 11042	47KΩ, Trimming
RL02	4822 100 11042	47KΩ, Trimming
RL05	4822 100 20545	22KΩ, Trimming
RL06	4822 100 20545	22KΩ, Trimming

REF. DESIG.	PART NO.	DESCRIPTION
		PJ03-SEMICONDUCTORS
DK11	4822 130 33305	Diode 1SS133, etc.
DS46	4822 130 33305	Diode 1SS133, etc.
DS61	4822 130 33305	Diode 1SS133, etc.
DY04	4822 130 80273	Zener 8.2V [SD-35]
Q601	4822 209 83614	IC TEA0665
Q602	4822 209 83614	IC TEA 0665
Q631	4822 209 80401	IC NJM4558D
Q651	4822 130 42483	Transistor 2SC536SP(F, G), etc.
Q652	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QG21	4822 209 80401	IC NJM4558D
QJ31	4822 209 81565	IC NJM2041DD
QJ41	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QJ42	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QJ48	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QK01	4822 209 70379	IC TDD1601
QK11	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QK12	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QK13	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QK14	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QK15	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QK16	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QK17	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QL01	4822 209 70378	IC TDA1600
QS25	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QS31	4822 130 42483	Transistor 2SC536SD(F, G), etc. [SD-45MKII]
QW11	4822 130 42125	Transistor 2SD1302(S, T)
QW12	4822 130 42125	Transistor 2SD1302(S, T)
QW13	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QW14	4822 130 42483	Transistor 2SC536SP(F, G), etc.
		PJ03-MISCELLANEOUS
J691	4822 265 10063	Jack, 6P [SD-45MKII]
	4822 265 10105	Jack, 4P [SD-35]
JE90	4822 265 10063	Jack, 6P
JG90	4822 265 10062	Jack, 3P [SD-35]
JJ01	4822 265 30473	Plug, 6P
JJ90	4822 267 50681	Jack, 9P
JL01	4822 265 10078	Plug, 3P
JL90	4822 265 10062	Jack, 3P [SD-35]
JW01	4822 265 30397	Terminal, 4P; RCA
JX91	4822 265 10064	Jack, 7P [SD-45MKII]
JX92	4822 265 10061	Jack, 5P [SD-35]
L601	4822 157 52461	M.P.X. Coil, 19KHz
L602	4822 157 52461	M.P.X. Coil, 19KHz
L603	4822 156 10842	Choke Coil, 36mH
L604	4822 156 10842	Choke Coil, 36mH
LK01	4822 152 20564	Choke Coil, 22mH
LK02	4822 152 20564	Choke Coil, 22mH
LL01	4822 146 10184	OSC Transformer
LL21	4822 152 20622	Choke Coil, 2.2mH
XK01	4822 242 71533	Ceramic Vibrator, CSB500E

REF. DESIG.	PART NO.	DESCRIPTION
		PJ23-BIAS FINE VOLUME CIRCUIT BOARD [SD-45MKII]
RL11	4822 100 20613	Variable Resistor 10KΩ(B)
WL90	4822 323 10081	Jumper Lead, 3P
		PJ23-BIAS FINE VOLUME CIRCUIT BOARD [SD-35]
RL11	4822 100 20613	Variable Resistor 10KΩ(B), Bias
RV02	4822 100 20615	Variable Resistor 250KΩ(W), Rec
WL90	4822 323 10107	Jumper Lead, 3P
		PJ33-DOLBY NR/MPX FILTER CIRCUIT BOARD [SD-45MKII]
CV01	4822 122 32486	Ceramic Cap. 0.01μF +80% −20%[E]
SS04	4822 276 11944	Push Switch, NR ON/OFF
SS05	4822 276 11944	Push Switch, NR B/C
SS06	4822 276 11944	Push Switch, MPX ON/OFF
W691	4822 323 10129	Jumper Lead, 6P
		PJ43-REC VOLUME CIRCUIT BOARD [SD-45MKII]
RV01	4822 100 20272	Variable Resistor, 100KΩ(A)
RV02	4822 100 20583	Variable Resistor, 250KΩ(B)
WE90	4822 323 10198	Jumper Lead, 6P
		PJ43-REC VOLUME CIRCUIT BOARD [SD-35]
RV01	4822 100 20272	Variable Resistor 100KΩ(A)
WE90	4822 323 10146	Jumper Lead, 6P
WE91	4822 323 10086	Jumper Lead, 4P
		PS03-LOGIC SW/INDICATOR CIRCUIT BOARD [SD-45MKII]
DS21	4822 130 33305	Diode 1SS133, etc.
DS23 ≀ DS27	4822 130 33305	Diode 1SS133, etc.
DS36	4822 130 33305	Diode 1SS133, etc.
DS41	4822 130 33305	Diode 1SS133, etc.
DY21	4822 130 32179	L.E.D. SLP981C
DY23	4822 130 33203	L.E.D. SLP481C
DY41	4822 130 32181	L.E.D. SLP281F
QS52	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QS53	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QS54	4822 130 42483	Transistor 2SC536SP(F, G), etc.

REF. DESIG.	PART NO.	DESCRIPTION
SS21	4822 276 11559	Push Switch, Rec
SS23 ≀ SS27	4822 276 11559	Push Switch, Rec
SS36	4822 276 11559	Push Switch, Memory
SS37	4822 276 11559	Push Switch, Reset
SS41	4822 276 11559	Push Switch, Play
WY02	4822 323 10272	Jumper Lead, 8P
WY03	4822 323 10272	Jumper Lead, 8P
		PS03-NR ON/OFF/MPX CIRCUIT BOARD [SD-35]
SS05	4822 276 12219	Push Switch, NR ON/OFF
SS06	4822 276 12219	Push Switch, NR B/C
SS12	4822 276 12219	Push Switch, MPX Filter
W691	4822 323 10087	Jumper Lead, 4P
WS03	4822 323 10087	Jumper Lead, 4P
		PU03-LOGIC MAIN CIRCUIT BOARD [SD-45MKII/SD-35]
		PU03-CAPACITORS
CM81	4822 122 40491	Ceramic 0.022μF +80% −20%
CM82	4822 122 32486	Ceramic 0.01μF +80% −20%
CU04	4822 122 32486	Ceramic 0.01μF +80% −20%
CU21	4822 122 32486	Ceramic 0.01μF +80% −20%
C801	4822 124 41313	Elect 1000μF 35V
C806	4822 124 22267	Elect 220μF 16V
C809	4822 122 32486	Ceramic 0.01μF +80% −20%
C810	4822 122 32486	Ceramic 0.01μF +80% −20%
		PU03-RESISTORS
GU03	4822 111 91276	10KΩx6 ±5% 1/5W, Allay
⚠R801	4822 116 60309	2.2Ω ±5% ¼W, Fusible [SD-45MKII]
⚠R802	4822 111 90724	330Ω ±5% ½W [SD-45MKII]
⚠R805	4822 116 60307	1Ω ±5% ¼W, Fusible
⚠R806	4822 116 60306	1Ω ±5% ½W, Fusible [SD-45MKII]
⚠R807	4822 116 21086	1Ω ±5% ½W, Fusible
		PU03-SEMICONDUCTORS
DM01	4822 130 32508	Diode DSF10C, etc.
DM02	4822 130 32508	Diode DSF10C, etc.
DM31	4822 130 33759	Zener RD4.7JB2
DM81	4822 130 33758	Zener RD4.7JB2
DU06	4822 130 33305	Diode 1SS133, etc.
DU11	4822 130 33305	Diode 1SS133, etc.
DU20	4822 130 33305	Diode 1SS133, etc.
DU21	4822 130 33305	Diode 1SS133, etc.
DU22	4822 130 33305	Diode 1SS133, etc.
DU51	4822 130 33759	Zener RD4.7JB2
DU52	4822 130 33305	Diode 1SS133, etc.
DU53	4822 130 33305	Diode 1SS133, etc. [SD-45MKII]
DU65	4822 130 33305	Diode 1SS133, etc.
DU66	4822 130 33305	Diode 1SS133, etc.
DU71	4822 130 33305	Diode 1SS133, etc.
DU96	4822 130 33305	Diode 1SS133, etc.
DU97	4822 130 33305	Diode 1SS133, etc.
DU98	4822 130 33305	Diode 1SS133, etc.

REF. DESIG.	PART NO.	DESCRIPTION
⚠D801	4822 130 32816	Diode 1SR35-200A
	4822 130 50314	Diode RB-152 (SD-35) [N]
⚠D802	4822 130 32816	Diode 1SR35-200A
⚠D803	4822 130 32816	Diode 1SR35-200A [SD-45MKII]
⚠D804	4822 130 32816	Diode 1SR35-200A [SD-45MKII]
⚠D807	4822 130 32508	Diode DSF10C, etc.
⚠D808	4822 130 32508	Diode DSF10C, etc.
⚠D809	4822 130 32508	Diode DSF10C, etc.
⚠D810	4822 130 33305	Diode 1SS133, etc. [SD-45MKII]
⚠D811	4822 130 80115	Zener RD15JB1 [SD-45MKII]
⚠D812	4822 130 33759	Zener RD4.7JB2 [SD-45MKII]
QM01	4822 130 60174	Transistor 2SD1379
QM02	4822 130 60174	Transistor 2SD1379
QM31	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QM32	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QM33	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QM34	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QM81	4822 209 82059	IC BA6019
QM82	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QM83	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QM84	4822 130 42483	Transistor 2SC536SP(F, G), etc. [SD-45MKII]
QU01	4822 209 83812	IC LM640202A
QU20	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QU21	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU51	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU54	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU55	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QU56	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU57	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU62	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU71	4822 130 30857	IC BA222
QU72	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QU73	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU92	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU93	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QU94	4822 130 42483	Transistor 2SC536SP(F, G), etc.
Q801	4822 209 83821	IC NJM78M06A
Q802	4822 209 82829	IC NJM78M15A
Q803	4822 130 60496	Transistor 2SB891(Q, R) [SD-45MKII]
		PU03-MISCELLANEOUS
JU90	4822 265 40602	Plug, 9P
JU92	4822 265 10062	Jack, 3P [SD-45MKII]
JU93	4822 265 10062	Jack, 3P [SD-35]
	4822 265 10063	Jack, 6P [SD-45MKII]
JY02	4822 265 10059	Jack, 8P
JY03	4822 265 10059	Jack, 8P [SD-45MKII]
	4822 265 10105	Jack, 4P [SD-35]
WM91	4822 323 10135	Jumper Lead, 7P
WM92	4822 323 10113	Jumper Lead, 5P
WM93	4822 323 10077	Jumper Lead, 3P
WR01	4822 323 10057	Jumper Lead, 6P
XU01	4822 242 71405	Ceramic Vibrator, CSG800K

REF. DESIG.	PART NO.	DESCRIPTION
		PX03-FL METER/COUNTER DRIVER CIRCUIT BOARD [SD-45MKII]
		PX03-CAPACITORS
CX15	4822 122 40491	Ceramic 0.022μF +80% −20%
CX16	4822 122 40491	Ceramic 0.022μF +80% −20%
CX17	4822 122 32486	Ceramic 0.01μF +80% −20%
CX32	5322 122 31626	Ceramic 100pF ±5%
		PX03-RESISTORS
RX13	4822 100 20545	22KΩ, Trimming
RX14	4822 100 20545	22KΩ, Trimming
RX19	4822 111 90727	220Ω ±5% ½W
GX01	4822 111 90956	100KΩx8, Allay
GX02	4822 111 90608	100KΩx12, Allay
		PX03-SEMICONDUCTORS
DX01	4822 130 33305	Diode 1SS133, etc.
DX02	4822 130 80115	Zener RD15JB1
DX03	4822 130 80116	Zener 24V
DX05	4822 130 33759	Zener RD4.7JB2
DX06	4822 130 33305	Diode 1SS133, etc.
DX07	4822 130 33305	Diode 1SS133, etc.
DX11	4822 130 32508	Diode DSF10C, etc.
DX32	4822 130 33305	Diode 1SS133, etc.
QX01	4822 130 60494	IC BA6805A
QX03	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QX04	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QX05	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QX06	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QX31	4822 209 83731	IC TM4028A
QX32	4822 130 60497	Transistor 2SC3311A(Q, R)
		PX03-MISCELLANEOUS
WU92	4822 323 10077	Jumper Lead, 3P
WU93	4822 323 10058	Jumper Lead, 6P
WX91	4822 323 10059	Jumper Lead, 7P
		PX03-FL METER/KEY SW/LED CIRCUIT BOARD [SD-35]
		PX03-RESISTORS
RX01	4822 100 11042	47KΩ, Trimming
RX02	4822 100 11042	47KΩ, Trimming
RX11	4822 116 60444	18Ω ±5% 1/6W, Metal [E]
		PX03-SEMICONDUCTORS
DS21	4822 130 33305	Diode 1SS133, etc.
DS23 ≀ DS27	4822 130 33305	Diode 1SS133, etc.
DS41	4822 130 33305	Diode 1SS133, etc.
DY01	4822 130 80326	L.E.D. LT3D8B
DY02	4822 130 80326	L.E.D. LT3D8B
DY03	4822 130 80326	L.E.D. LT3D8B
DY06	4822 130 80326	L.E.D. LT3D8B
DY07	4822 130 80326	L.E.D. LT3D8B
DY12	4822 130 80326	L.E.D. LT3D8B
DY21	4822 130 80326	L.E.D. LT3D8B
DY23	4822 130 80325	L.E.D. LT3H8D
DY41	4822 130 80327	L.E.D. LT3G8B

REF. DESIG.	PART NO.	DESCRIPTION
QS52	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QS53	4822 130 42715	Transistor 2SA608SP(F, G), etc.
QS54	4822 130 42483	Transistor 2SC536SP(F, G), etc.
QX01	4822 209 70049	IC BA6146
QX02	4822 209 70049	IC BA6146
		PX03-MISCELLANEOUS
SS21	4822 276 11559	Push Switch, Rec
SS23 ≀ SS27	4822 276 11559	Push Switch, Rec
SS41	4822 276 11559	Push Switch, Play
VX01	4822 130 90434	Display Unit
WU93	4822 323 10224	Jumper Lead, 3P
WX92	4822 323 10113	Jumper Lead, 5P
WY02	4822 323 10136	Jumper Lead, 8P
WY03	4822 323 10087	Jumper Lead, 4P
		PX13-FL METER CIRCUIT BOARD [SD-45MKII]
VX01	4822 130 90401	Display Unit
		P833-POWER SWITCH CIRCUIT BOARD [SD-45MKII/SD-35]
⚠C851	4822 122 40305	Ceramic Cap. 0.01μF 400V
⚠S851	4822 276 11141	Push Switch, Power
		P883-PT 2ND CONNECT CIRCUIT BOARD [SD-35]
J801	4822 265 10063	Jack, 6P

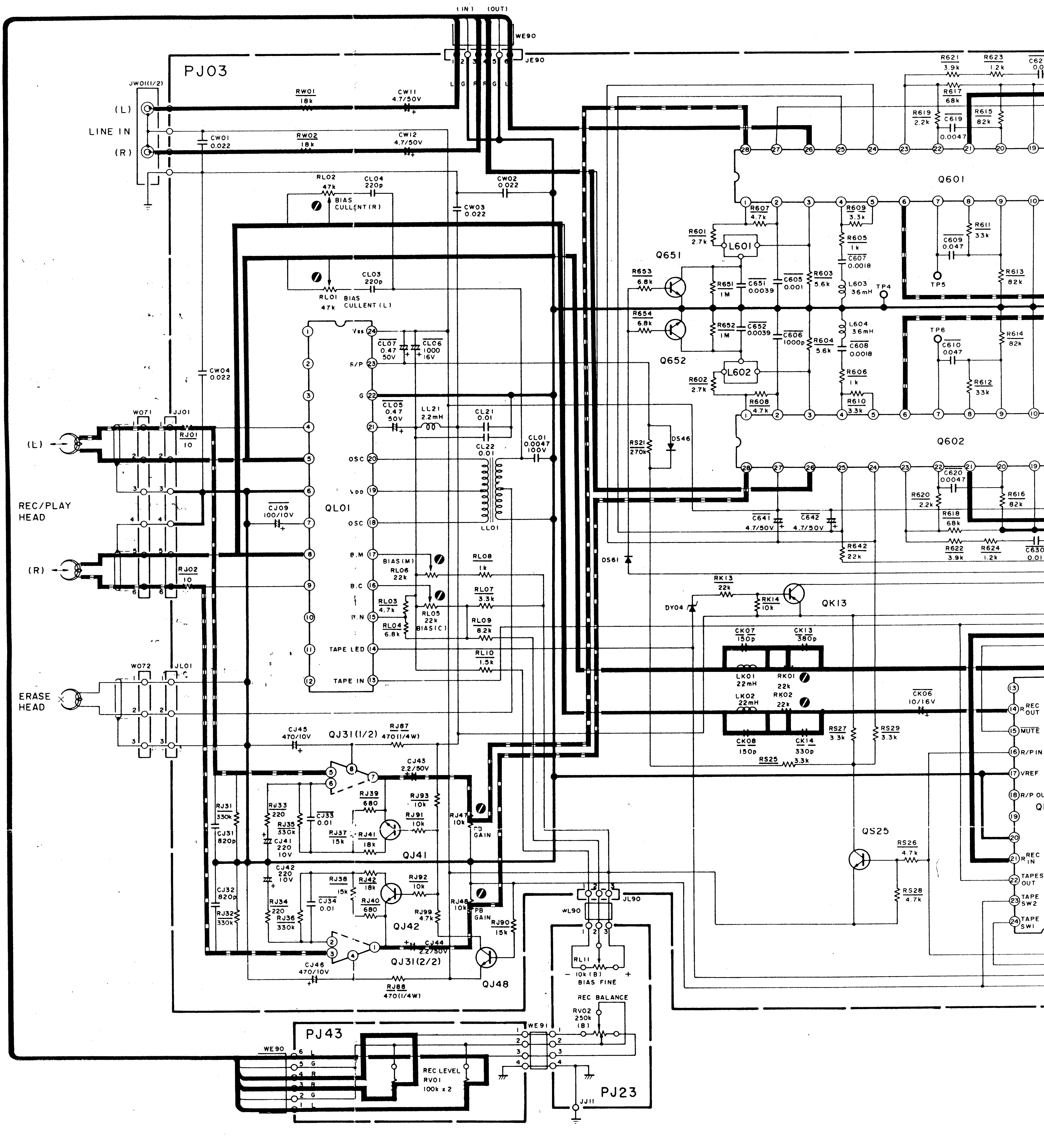
(W01-99)	**Assembly and Wiring**
(T01-99)	**Adjustment**
(X01-00)	**Correction**

NOTE ON SAFETY:
SYMBOL ⚠ FIRE OR ELECTRICAL SHOCK HAZARD. ONLY ORIGINAL PARTS SHOULD BE USED TO REPLACE ANY PART MARKED WITH SYMBOL ⚠. ANY OTHER COMPONENT SUBSTITUTION (OTHER THAN ORIGINAL TYPE), MAY INCREASE RISK OF FIRE OR ELECTRICAL SHOCK HAZARD.

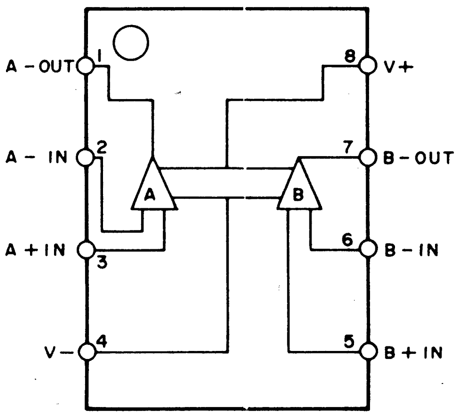
14. TECHNICAL SPECIFICATION

	MODEL SD-35	**MODEL SD-45II**
Style	Front load	Front load
Tape Drive System	Single Capstan Drive	Single Capstan Drive
Cartridge	Philips type compact cassette	Philips type compact cassette
Track System	Compatible Stereo 4-track 2-channel	Compatible Stereo 4-track 2-channel
Tape Speed	4.75 cm/sec.	4.75 cm/sec.
Heads	2 Head System	2 Head System
Composition	Rec/Play: Super Hard Metal Alloy Erase: Dual Gap Ferrite	Rec/Play: Super Hard Metal Alloy Erase: Dual Gap Ferrite
Motor	2 Motor System Capstan: DC Servo Motor Reel: DC Motor	2 Motor System Capstan: DC Servo Motor Reel: DC Motor
Overall Frequency Response at −20 dB		
Normal Tape	20 Hz – 17 kHz	20 Hz – 18 kHz
CrO_2 Tape	20 Hz – 18 kHz	20 Hz – 19 kHz
Metal Tape	20 Hz – 19 kHz	20 Hz – 20 kHz
Signal-to-Noise Ratio:		
Dolby B/C (ON)	65/74 dB	68/75 dB
Dolby (OFF)	57 dB	59 dB
Wow and Flutter		
DIN WTD	0.09%	0.09%
Outputs		
Line Level/Impedance	500 mV/3.3 k ohms	500 mV/3.3k ohms
Headphone Level/Impedance	50 mV/100 ohms	50 mV/100 ohms
Input (Level at 0 VU)		
Line Sensitivity/Impedance	70 mV/40 k ohms	70 mV/40 k ohms
Fast Rewind Time	95 sec. (C-60)	95 sec. (C-60)
Fast Forward Time	95 sec. (C-60)	95 sec. (C-60)
Power Requirements		
N.T. and A	220/240 V AC, 50/60 Hz	220/240 V AC, 50/60 Hz
E version	110/120/220/240V AC, 50/60 Hz	110/120/220/240V AC, 50/60 Hz
Power Consumption at Rated Output, both Channels Operating	20 W	20 W
Dimensions		
Panel Width	420 mm	420 mm
Panel Height	100 mm	100 mm
Depth	260 mm	260 mm
Weight	4.3 kg	4.4 kg

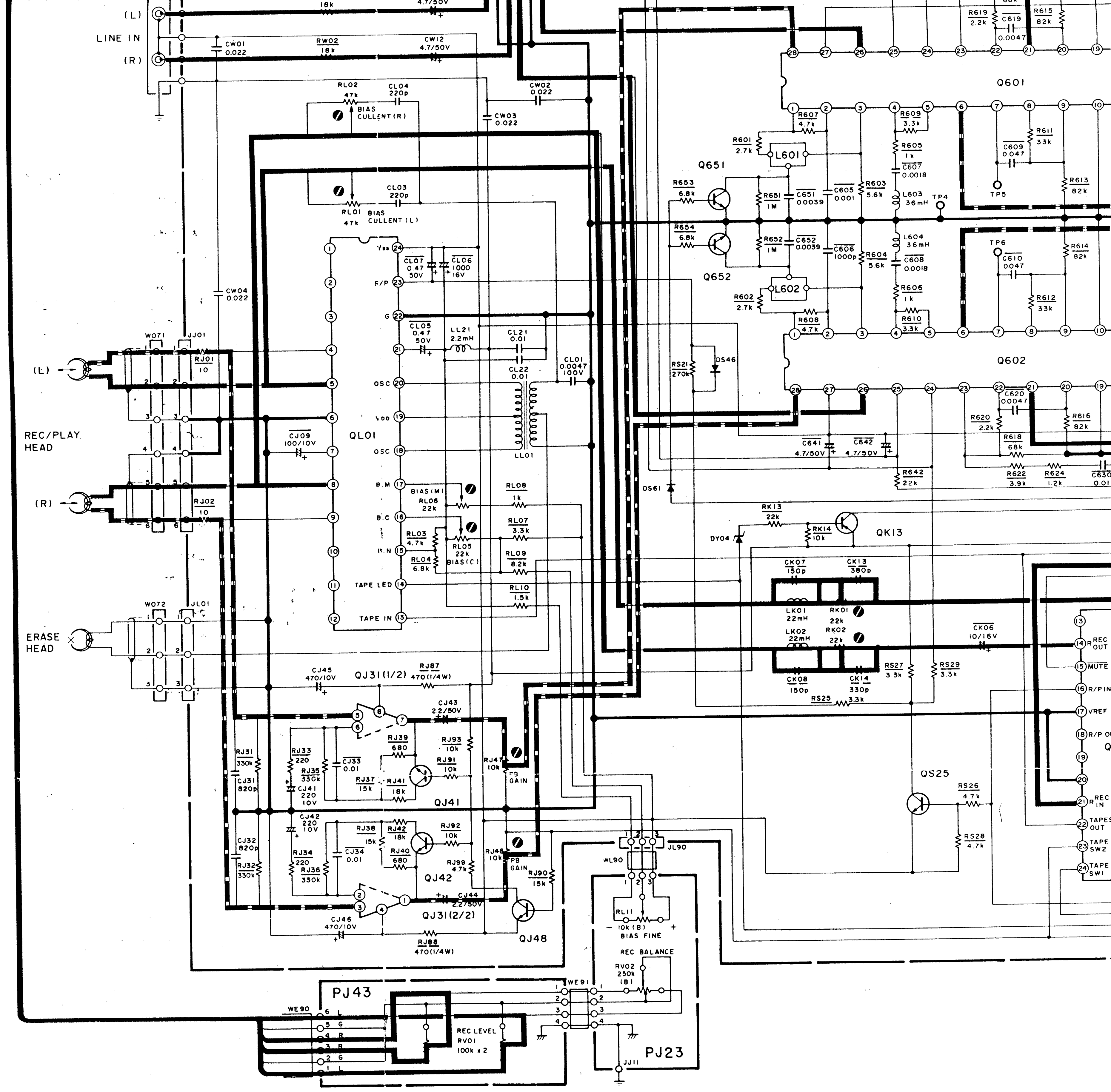
SCHEMATIC DIAGRAM


(IN) (OUT)
WE90
JE90
PJ03
JW01(1/2)
(L)
LINE IN
(R)
RW01 18k
CW11 4.7/50V
RW02 18k
CW12 4.7/50V
CW01 0.022
RL02 47k
CL04 220p
BIAS CULLENT (R)
CW02 0.022
CW03 0.022
CL03 220p
RL01 47k
BIAS CULLENT (L)
CW04 0.022
QL01
Vss
R/P
G
OSC
VDD
B.M
B.C
B.N
TAPE LED
TAPE IN
CL07 0.47 50V
CL06 1000 16V
CL05 0.47 50V
LL21 2.2mH
CL21 0.01
CL22 0.01
CL01 0.0047 100V
LL01
CJ09 100/10V
BIAS(M)
RL06 22k
RL03 4.7k
RL05 22k BIAS(C)
RL04 6.8k
RL08 1k
RL07 3.3k
RL09 8.2k
RL10 1.5k
W071
JJ01
RJ01 10
RJ02 10
REC/PLAY HEAD
ERASE HEAD
W072
JL01
CJ45 470/10V
QJ31(1/2)
RJ87 470(1/4W)
CJ43 2.2/50V
RJ31 330k
CJ31 820p
RJ33 220
RJ35 330k
CJ33 0.01
CJ41 220 10V
RJ39 680
RJ37 15k
RJ41 18k
RJ93 10k
RJ91 10k
RJ47 10k
PB GAIN
QJ41
CJ42 220 10V
CJ32 820p
RJ32 330k
RJ34 220
RJ36 330k
CJ34 0.01
RJ38 15k
RJ42 18k
RJ40 680
RJ92 10k
RJ99 4.7k
RJ48 10k
PB GAIN
RJ90 15k
QJ42
CJ44 2.2/50V
QJ31(2/2)
CJ46 470/10V
RJ88 470(1/4W)
QJ48
JL90
WL90
RL11 10k(B) BIAS FINE
REC BALANCE
RV02 250k (B)
PJ43
WE90
WE91
REC LEVEL RV01 100k x 2
PJ23
JJ11
R621 3.9k
R623 1.2k
R617 68k
R619 2.2k
C619 0.0047
R615 82k
Q601
R607 4.7k
R609 3.3k
R601 2.7k
L601
R605 1k
C607 0.0018
C609 0.047
R611 33k
Q651
R653 6.8k
R651 1M
C651 0.0039
C605 0.001
R603 5.6k
L603 36mH
TP4
TP5
R613 82k
R654 6.8k
R652 1M
C652 0.0039
C606 1000p
R604 5.6k
L604 36mH
C608 0.0018
TP6
C610 0.047
R614 82k
Q652
L602
R602 2.7k
R606 1k
R612 33k
R608 4.7k
R610 3.3k
RS21 270k
DS46
Q602
C620 0.0047
R620 2.2k
R616 82k
C641 4.7/50V
C642 4.7/50V
R618 68k
R622 3.9k
R624 1.2k
R642 22k
DS61
RK13 22k
RK14 10k
QK13
DY04
CK07 150p
CK13 380p
LK01 22mH
RK01 22k
LK02 22mH
RK02 22k
CK06 10/16V
CK08 150p
CK14 330p
RS27 3.3k
RS29 3.3k
RS25 3.3k
QS25
RS26 4.7k
RS28 4.7k
REC OUT
MUTE
R/P IN
VREF
R/P OUT
REC IN
TAPES OUT
TAPE SW2
TAPE SW1

(QJ31)

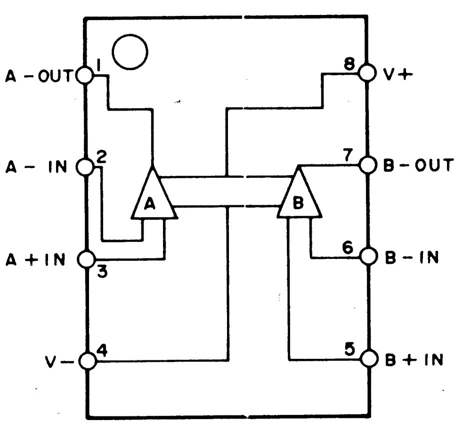

A-OUT
A- IN
A+IN
V-
V+
B-OUT
B-IN
B+IN
A
B
1
2
3
4
5
6
7
8

Components and wiring are subject to change for modification without notice.



LINE IN
(L)
(R)
REC/PLAY HEAD
ERASE HEAD
QL01
Q601
Q602
Q651
Q652
QK13
QS25
QJ41
QJ42
QJ48
QJ31(1/2)
QJ31(2/2)
BIAS CULLENT(R)
BIAS CULLENT(L)
BIAS(M)
BIAS(C)
REC GAIN
PB GAIN
BIAS FINE
REC BALANCE
REC LEVEL RV01 100k x 2
PJ43
PJ23
WL90
JL90
WE90
WE91
W071
W072
JJ01
JL01
TP4
TP5
TP6
DS46
DS61
DY04

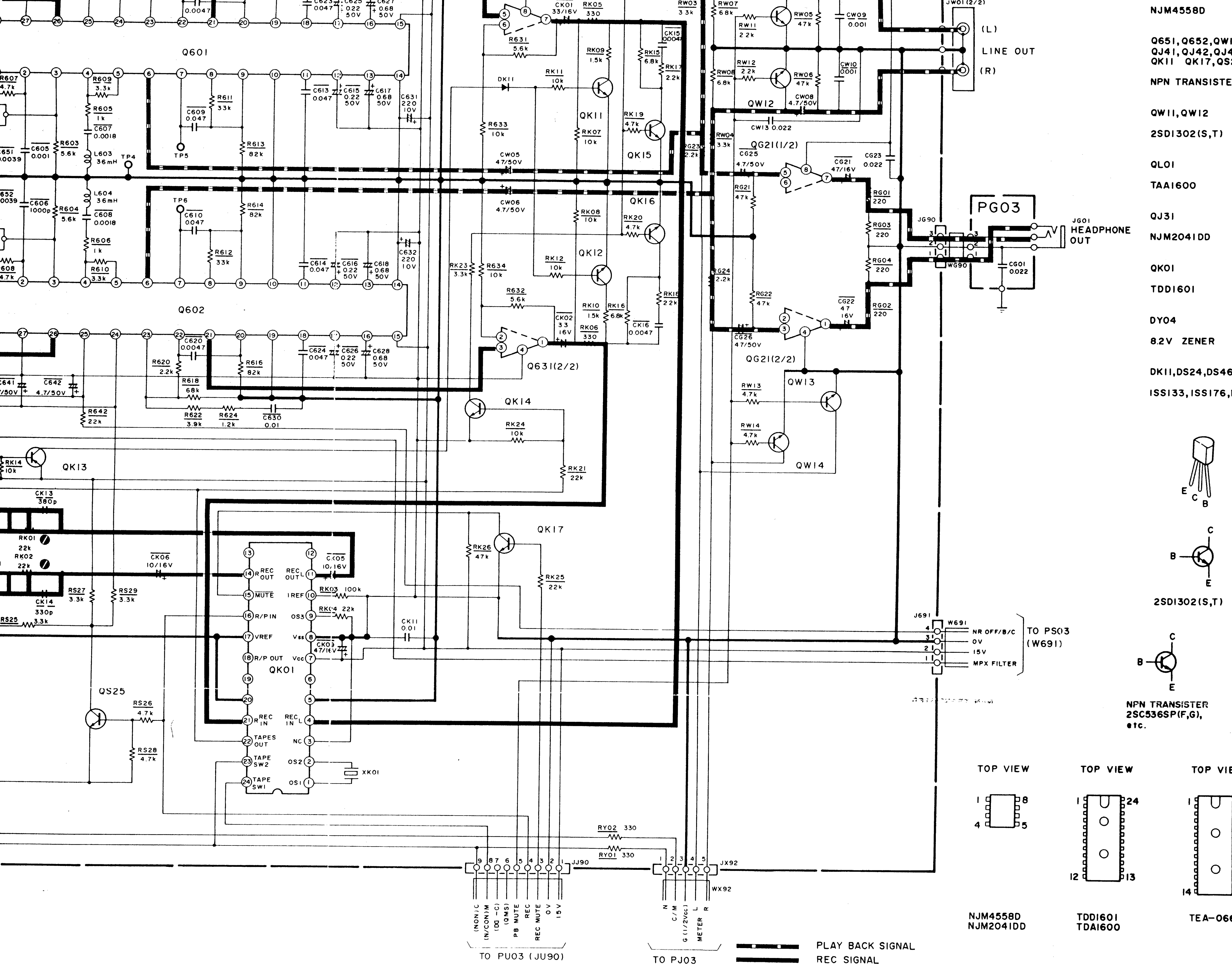
(QJ31)



A-OUT
A- IN
A+IN
V-
V+
B-OUT
B-IN
B+IN
A
B
1
2
3
4
5
6
7
8

Components and wiring are subject to change for modification without notice.

NOTE ON SAFETY:
Symbol ⚠ Fire or electrical shock hazard. Only original partrs should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.


Q601
Q602
QK01
QK11
QK12
QK13
QK14
QK15
QK16
QK17
QS25
QW12
QW13
QW14
QG21(1/2)
QG21(2/2)
Q631(2/2)
LINE OUT
(L)
(R)
PG03
HEADPHONE OUT
TO PS03 (W691)
NR OFF/B/C
0V
15V
MPX FILTER
TO PU03 (JU90)
TO PJ03
PLAY BACK SIGNAL
REC SIGNAL
NJM4558D
Q651,Q652,QW11
QJ41,QJ42,QJ4
QK11 QK17,QS2
NPN TRANSISTE
QW11,QW12
2SD1302(S,T)
QL01
TAA1600
QJ31
NJM2041DD
QK01
TDD1601
DY04
8.2V ZENER
DK11,DS24,DS46
1SS133,1SS176,
2SD1302(S,T)
NPN TRANSISTER
2SC536SP(F,G),
etc.
TOP VIEW
TOP VIEW
TOP VIE
NJM4558D
NJM2041DD
TDD1601
TDA1600
TEA-066

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REPAIR BY ANY MARANTZ SERVICE CENTER–"

Kind of Common Parts

RESISTOR

R*** (1) GD05 - - 140, Carbon film fixed resistor, ±5% 1/4W

R*** (2) GD05 - - 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**

(1) DD1 - - - 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**

(1) DK16 - - 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

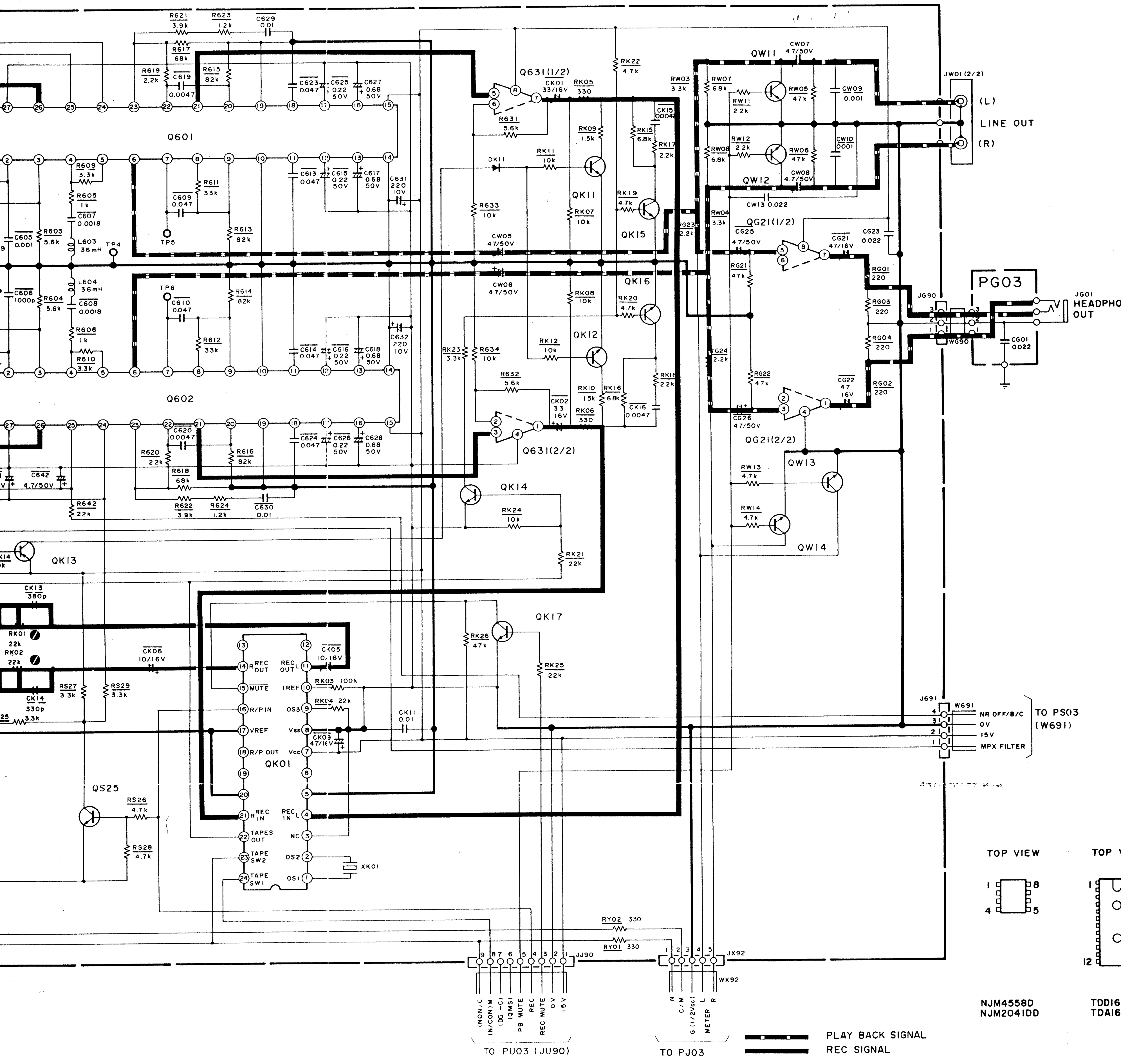
C*** : **ELECTROLY CAP. (≠)/FILM CAP. (≑)**

(1) EA - - - - - 10, Electrolytic condenser,
one-way lead type, tolerance ±20%

(2) DF15 - - 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"

MOD


Q601
Q602
Q631(1/2)
Q631(2/2)
QG21(1/2)
QG21(2/2)
QW11
QW12
QW13
QW14
QK11
QK12
QK13
QK14
QK15
QK16
QK17
QK01
QS25
TP4
TP5
TP6
L603 36mH
L604 36mH
XK01
JW01(2/2)
(L)
LINE OUT
(R)
PG03
JG90
JG01
HEADPHONE OUT
W690
J691
W691
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
JJ90
JX92
WX92
(NON)C
(N/CON)M
(00-C)
(QMS)
PB MUTE
REC
REC MUTE
0V
15V
N
C/M
G (1/2Vcc)
L
R
METER
TO PU03 (JU90)
TO PJ03
PLAY BACK SIGNAL
REC SIGNAL

Q601,Q602

TEA-0665

Q631,QG21

NJM4558D

Q651,Q652,QW13,Q
QJ41,QJ42,QJ48,Q
QK11 QK17,QS25

NPN TRANSISTER

QW11,QW12

2SD1302(S,T)

QL01

TAA1600

QJ31

NJM2041DD

QK01

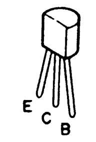
TDD1601

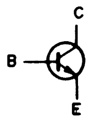
DY04

8.2V ZENER

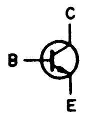
DK11,DS24,DS46,D

1SS133,1SS176,MA



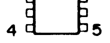


2SD1302(S,T)



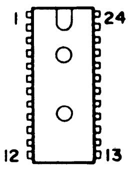
NPN TRANSISTER
2SC536SP(F,G),
etc.

TOP VIEW



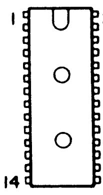
NJM4558D
NJM2041DD

TOP VIEW



TDD1601
TDA1600

TOP VIE



TEA-066

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Kind of Common Parts

RESISTOR

R*** (1) GD05 -- 140, Carbon film fixed resistor, ±5% 1/4W

R*** (2) GD05 -- 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**

(1) DD1 --- 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**

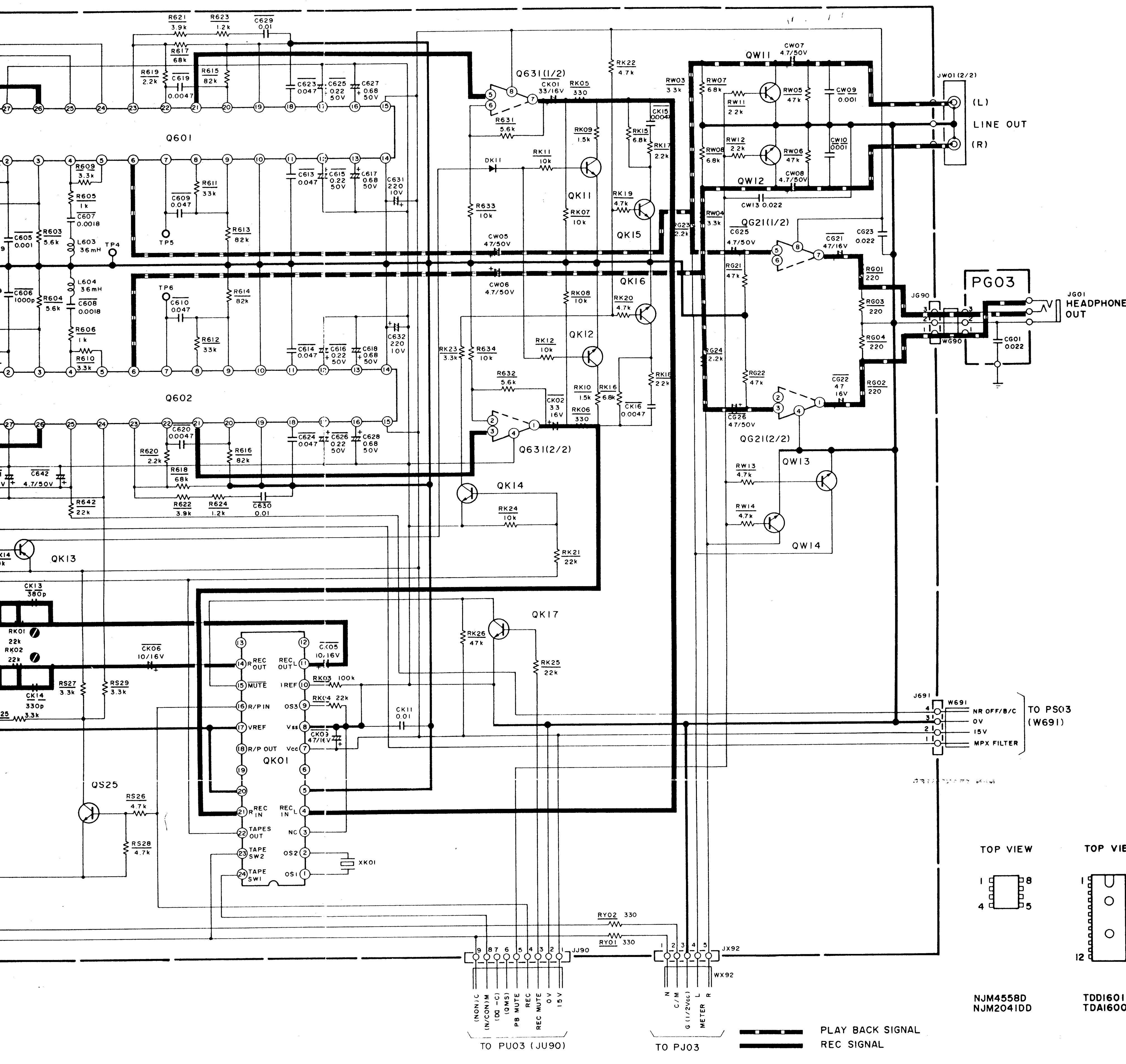
(1) DK16 -- 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (≠)/FILM CAP. (≑)**

(1) EA ----- 10, Electrolytic condenser,
one-way lead type, tolerance ±20%

(2) DF15 -- 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

MOD


Q601
Q602
Q631(1/2)
Q631(2/2)
QG21(1/2)
QG21(2/2)
QW11
QW12
QW13
QW14
QK11
QK12
QK13
QK14
QK15
QK16
QK17
QK01
QS25
JW01(2/2)
(L)
LINE OUT
(R)
PG03
JG90
W690
JG01
HEADPHONE OUT
CG01 0.022
J691
W691
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
JU90
JX92
WX92
(NON)C
(N/CONV)M
(00-C)
(QMS)
PB MUTE
REC
REC MUTE
0V
15V
N
C/M
G(1/2Vcc)
METER
L
R
TO PU03 (JU90)
TO PJ03
RY02 330
RY01 330
XK01
R REC OUT
REC L OUT
MUTE
IREF
R/PIN
OS3
VREF
Vss
R/P OUT
Vcc
R REC IN
REC L IN
TAPES OUT
NC
TAPE SW2
OS2
TAPE SW1
OS1
TP4
TP5
TP6
L603 36mH
L604 36mH
R621 3.9k
R623 1.2k
C629 0.01
R617 68k
R619 2.2k
C619 0.0047
R615 82k
R622 3.9k
R624 1.2k
C630 0.01
R618 68k
R620 2.2k
C620 0.0047
R616 82k
RK22 4.7k
RK05 330
CK01 33/16V
RK06 330
CK02 33 16V
CW07 4.7/50V
CW08 4.7/50V
CW05 4.7/50V
CW06 4.7/50V
CW13 0.022
CG21 47/16V
CG22 47 16V
CG23 0.022
CG25 4.7/50V
CG26 4.7/50V
RG01 220
RG02 220
RG03 220
RG04 220
RK26 47k
RK25 22k
RK24 10k
RK21 22k
CK13 380p
CK14 330p
CK06 10/16V
CK05 10/16V
CK11 0.01
CK03 47/16V
RK03 100k
RK04 22k
RS26 4.7k
RS28 4.7k
RS27 3.3k
RS29 3.3k
RK01 22k
RK02 22k
PLAY BACK SIGNAL
REC SIGNAL

Q601,Q602

TEA-0665

Q631,QG21

NJM4558D

Q651,Q652,QW13,Q
QJ41,QJ42,QJ48,Q
QK11 QK17,QS25

NPN TRANSISTER

QW11,QW12

2SD1302(S,T)

QL01

TAA1600

QJ31

NJM2041DD

QK01

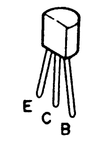
TDD1601

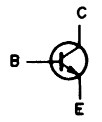
DY04

8.2V ZENER

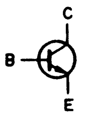
DK11,DS24,DS46,D

1SS133,1SS176,MA





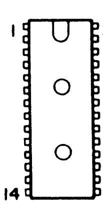
2SD1302(S,T)


C
B
E

NPN TRANSISTER
2SC536SP(F,G),
etc.

TOP VIEW
1
8
4
5

TOP VIEW
1
24
12
13


TOP VIEW
1
14

NJM4558D
NJM2041DD

TDD1601
TDA1600

TEA-066

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Kind of Common Parts

RESISTOR

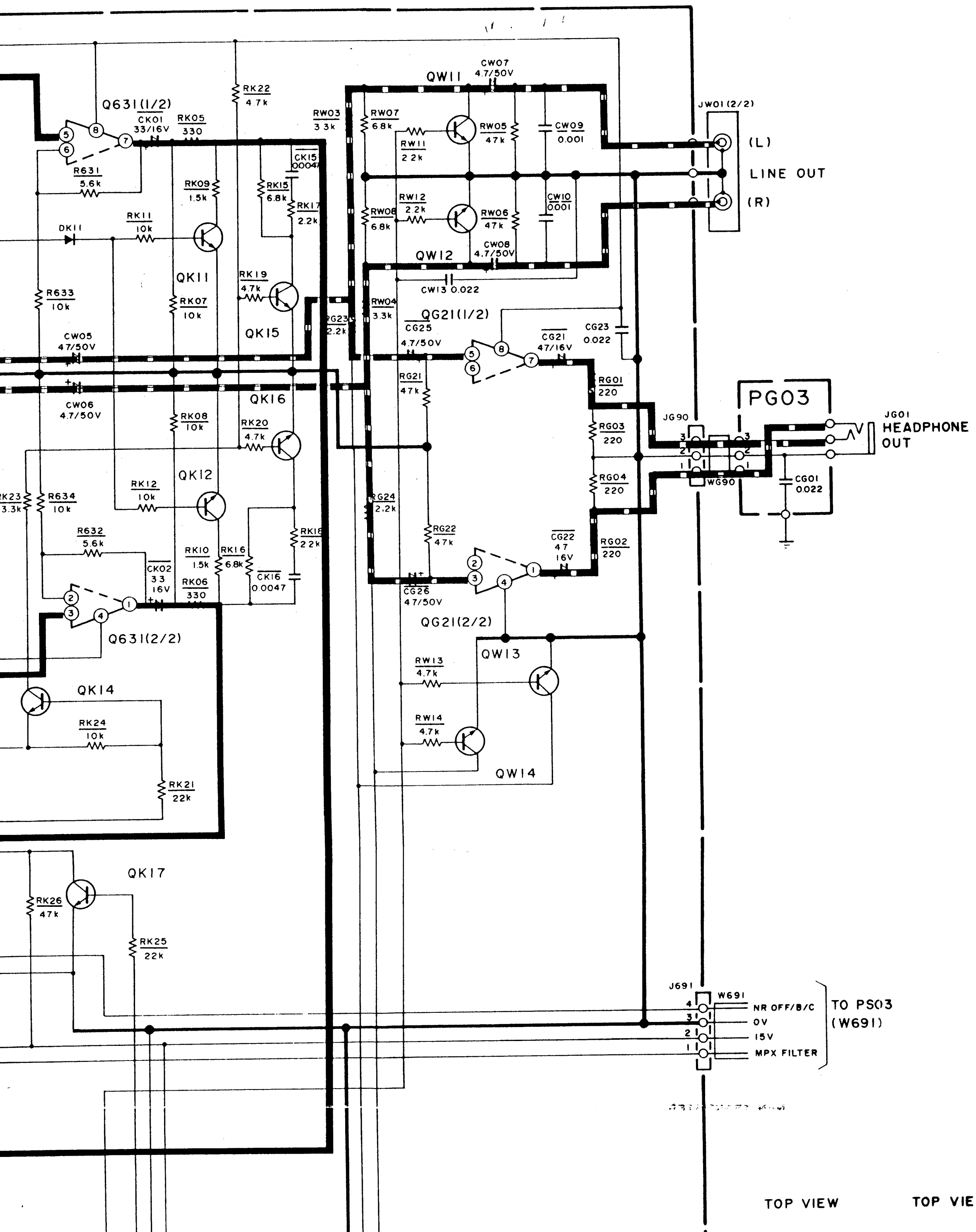
R*** (1) GD05 -- 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 -- 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**
(1) DD1 --- 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**
(1) DK16 -- 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (≠)/FILM CAP. (≑)**
(1) EA ----- 10, Electrolytic condenser, one-way lead type, tolerance ±20%
(2) DF15 -- 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

MODEL SD-35


Q631(1/2)
CK01 33/16V
RK05 330
R631 5.6k
RK22 4.7k
RW03 3.3k
QW11
CW07 4.7/50V
RW07 6.8k
RW11 2.2k
RW05 47k
CW09 0.001
JW01(2/2)
(L)
LINE OUT
(R)
RW08 6.8k
RW12 2.2k
RW06 47k
CW10 0.001
CW08 4.7/50V
QW12
CW13 0.022
CK15 0.0047
RK15 6.8k
RK17 2.2k
RK09 1.5k
DK11
RK11 10k
QK11
RK19 4.7k
RK07 10k
QK15
R633 10k
CW05 47/50V
CW06 4.7/50V
RG23 2.2k
RW04 3.3k
QG21(1/2)
CG25 4.7/50V
CG21 47/16V
CG23 0.022
RG21 47k
RG01 220
RG03 220
RG04 220
RG02 220
PG03
JG90
W690
JG01
HEADPHONE OUT
CG01 0.022
QK16
RK08 10k
RK20 4.7k
QK12
RK12 10k
RK23 3.3k
R634 10k
R632 5.6k
RK10 1.5k
RK16 6.8k
CK16 0.0047
RK18 2.2k
CK02 33 16V
RK06 330
Q631(2/2)
RG24 2.2k
RG22 47k
CG22 47 16V
CG26 47/50V
QG21(2/2)
QW13
RW13 4.7k
RW14 4.7k
QW14
QK14
RK24 10k
RK21 22k
QK17
RK26 47k
RK25 22k
J691
W691
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
RY02 330
RY01 330
JJ90
JX92
WX92
(NON)C
(N/CON)M
(DQ-C)
(QMS)
PB MUTE
REC
REC MUTE
0V
15V
N
C/M
G(1/2Vcc)
L
METER
R
TO PU03 (JU90)
TO PJ03
PLAY BACK SIGNAL
REC SIGNAL

Q601,Q602
TEA-0665

Q631,QG21
NJM4558D

Q651,Q652,QW13,QW14
QJ41,QJ42,QJ48,QS24
QK11 QK17,QS25
NPN TRANSISTER

QW11,QW12
2SD1302(S,T)

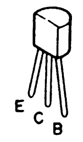
QL01
TAA1600

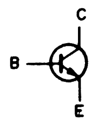
QJ31
NJM2041DD

QK01
TDD1601

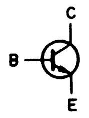
DY04
8.2V ZENER

DK11,DS24,DS46,DS61
1SS133,1SS176,MA165



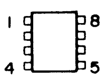


2SD1302(S,T)



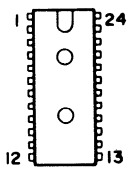
NPN TRANSISTER
2SC536SP(F,G),
etc.

TOP VIEW



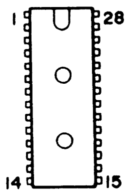
NJM4558D
NJM2041DD

TOP VIEW



TDD1601
TDA1600

TOP VIEW



TEA-0665

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTER–"

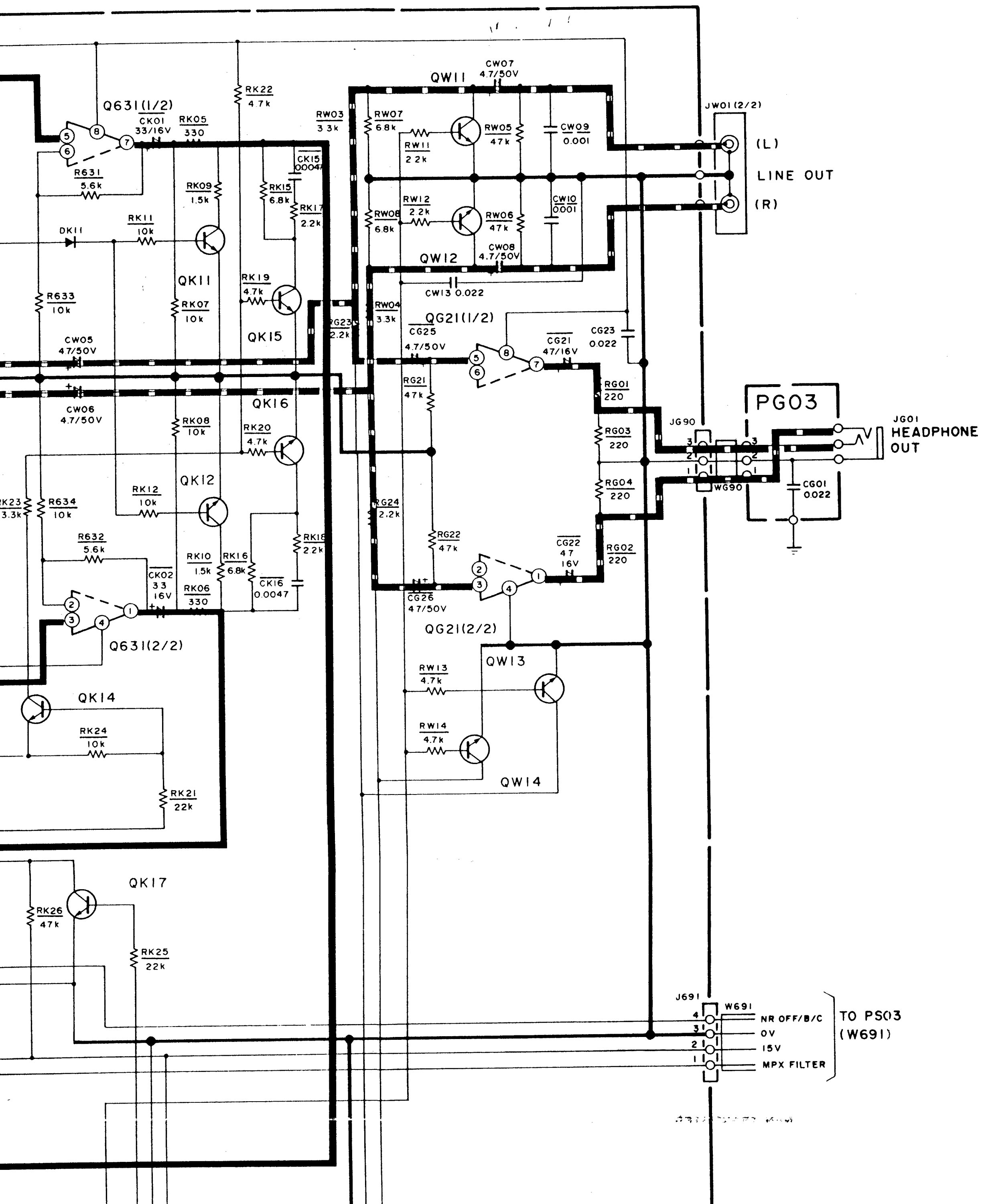
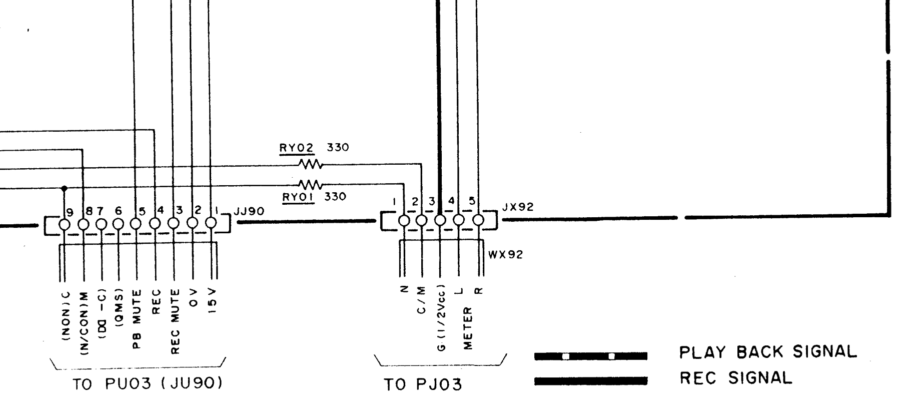
Kind of Common Parts

RESISTOR
R*** (1) GD05 -- 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 -- 160, Carbon film fixed resistor, ±5% 1/6W
C*** : CERAMIC CAP.
(1) DD1 --- 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

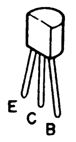
C*** : CERAMIC CAP.
(1) DK16 -- 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

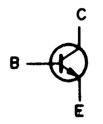
C*** : ELECTROLY CAP. (⧣)/FILM CAP. (⧧)
(1) EA ----- 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 -- 350, Plastic film condenser,

MODEL SD-35

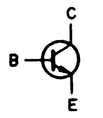


Q631(1/2)
CK01 33/16V
RK05 330
RK22 4.7k
RW03 3.3k
RW07 6.8k
QW11
CW07 4.7/50V
RW11 2.2k
RW05 47k
CW09 0.001
JW01(2/2)
(L)
LINE OUT
(R)
R631 5.6k
CK15 0.0047
RK09 1.5k
RK15 6.8k
RK17 2.2k
DK11
RK11 10k
RW12 2.2k
RW08 6.8k
RW06 47k
CW10 0.001
CW08 4.7/50V
QW12
CW13 0.022
R633 10k
QK11
RK07 10k
RK19 4.7k
QK15
RG23 2.2k
RW04 3.3k
CG25 4.7/50V
QG21(1/2)
CG21 47/16V
CG23 0.022
CW05 47/50V
CW06 4.7/50V
RG21 47k
RG01 220
PG03
QK16
RK08 10k
RK20 4.7k
RG03 220
JG90
JG01
HEADPHONE OUT
RK12 10k
QK12
RG04 220
WG90
CG01 0.022
RK23 3.3k
R634 10k
RG24 2.2k
R632 5.6k
RK10 1.5k
RK16 6.8k
RK18 2.2k
RG22 47k
CG22 47 16V
RG02 220
CK02 33 16V
RK06 330
CK16 0.0047
CG26 47/50V
QG21(2/2)
Q631(2/2)
QW13
QK14
RK24 10k
RW13 4.7k
RW14 4.7k
QW14
RK21 22k
QK17
RK26 47k
RK25 22k
J691
W691
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
RY02 330
RY01 330
JJ90
(NON)C
(N/CON)M
(D0-C)
(QMS)
PB MUTE
REC
REC MUTE
0V
15V
JX92
WX92
N
C/M
G(1/2Vcc)
L
METER
R
TO PU03 (JU90)
TO PJ03
PLAY BACK SIGNAL
REC SIGNAL

Q601,Q602	TEA-0665
Q631,QG21	NJM4558D
Q651,Q652,QW13,QW14 QJ41,QJ42,QJ48,QS24 QK11 QK17,QS25	NPN TRANSISTER
QW11,QW12	2SD1302(S,T)
QL01	TAA1600
QJ31	NJM2041DD
QK01	TDD1601
DY04	8.2V ZENER
DK11,DS24,DS46,DS61	1SS133,1SS176,MA165

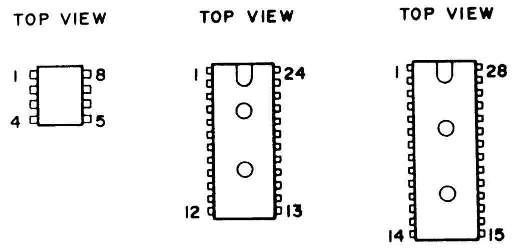




2SD1302(S,T)



NPN TRANSISTER
2SC536SP(F,G),
etc.


TOP VIEW
1
8
4
5
TOP VIEW
1
24
12
13
TOP VIEW
1
28
14
15

NJM4558D
NJM2041DD

TDD1601
TDA1600

TEA-0665

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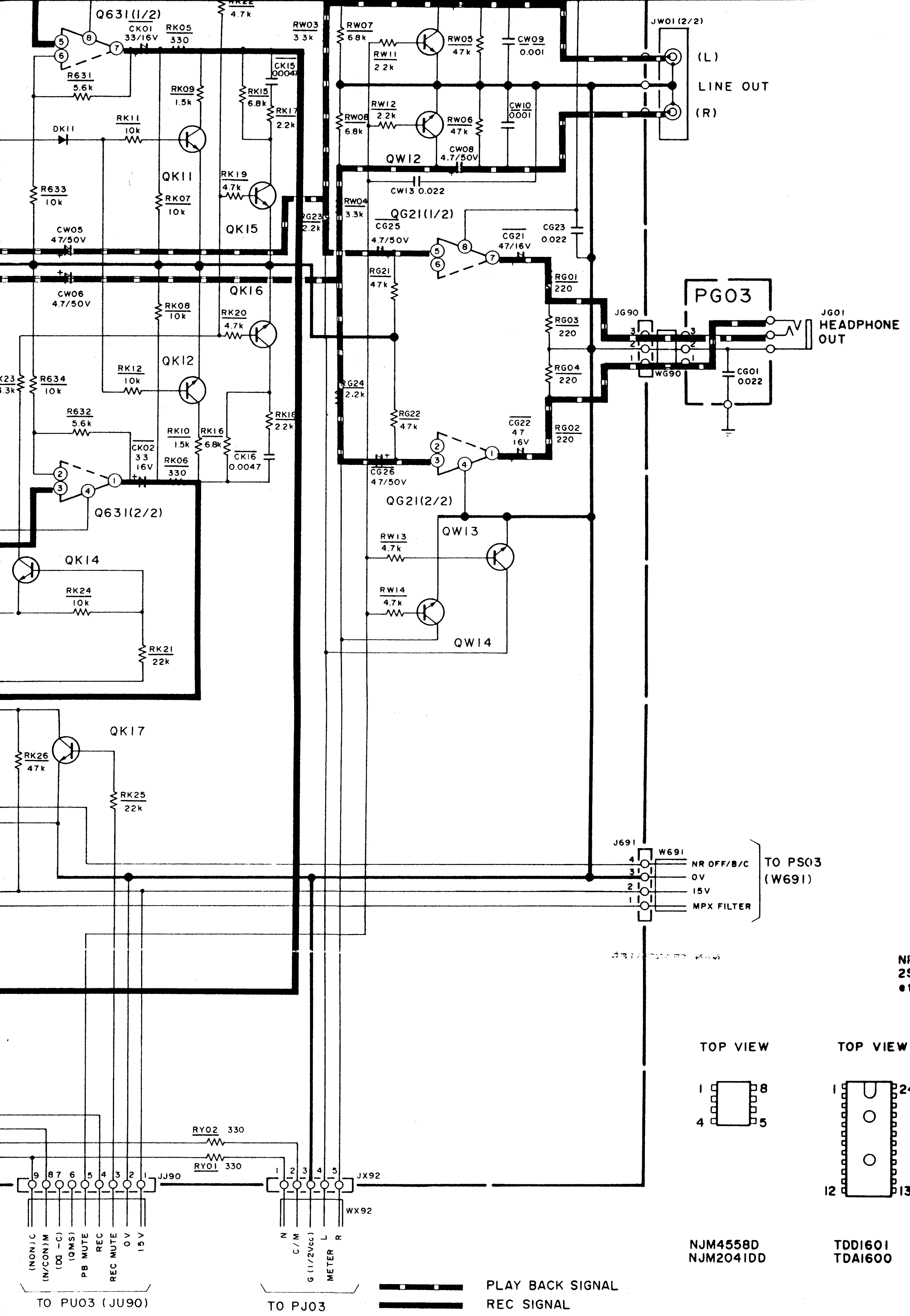
Kind of Common Parts

RESISTOR

R*** (1) GD05 -- 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 -- 160, Carbon film fixed resistor, ±5% 1/6W
C*** : CERAMIC CAP.
(1) DD1 --- 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

C*** : CERAMIC CAP.
(1) DK16 -- 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

C*** : ELECTROLY CAP. (⧣)/FILM CAP. (⫨)
(1) EA ----- 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 -- 350, Plastic film condenser,


Q631(1/2)
CK01 33/16V
RK05 330
R631 5.6k
RK09 1.5k
RK15 6.8k
CK15 0.0047
RK17 2.2k
RK11 10k
DK11
QK11
RK19 4.7k
R633 10k
RK07 10k
QK15
CW05 47/50V
CW06 4.7/50V
RK08 10k
QK16
RK20 4.7k
R634 10k
RK12 10k
QK12
R632 5.6k
CK02 33 16V
RK10 1.5k
RK16 6.8k
RK18 2.2k
CK16 0.0047
RK06 330
Q631(2/2)
QK14
RK24 10k
RK21 22k
QK17
RK26 47k
RK25 22k
RW03 3.3k
RW07 6.8k
RW11 2.2k
RW05 47k
CW09 0.001
RW08 6.8k
RW12 2.2k
RW06 47k
CW10 0.001
QW12
CW08 4.7/50V
CW13 0.022
RW04 3.3k
RG23 2.2k
QG21(1/2)
CG25 4.7/50V
CG21 47/16V
CG23 0.022
RG21 47k
RG01 220
RG03 220
RG04 220
RG24 2.2k
RG22 47k
CG22 47 16V
RG02 220
CG26 47/50V
QG21(2/2)
QW13
RW13 4.7k
RW14 4.7k
QW14
JW01(2/2)
(L)
LINE OUT
(R)
PG03
JG90
WG90
JG01 HEADPHONE OUT
CG01 0.022
J691
W691
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
RY02 330
RY01 330
JU90
JX92
WX92
(NON/C) (N/CON)M (DD-C) (DNS) PB MUTE REC REC MUTE 0V 15V
N C/M G(1/2Vcc) L METER R
TO PU03 (JU90)
TO PJ03
PLAY BACK SIGNAL
REC SIGNAL

Q631,QG21

NJM4558D

Q651,Q652,QW13,QW14
QJ41,QJ42,QJ48,QS24
QK11 QK17,QS25

NPN TRANSISTER

QW11,QW12

2SD1302(S,T)

QL01

TAA1600

QJ31

NJM2041DD

QK01

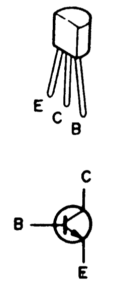
TDD1601

DY04

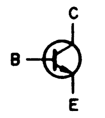
8.2V ZENER

DK11,DS24,DS46,DS61

1SS133,1SS176,MA165



2SD1302(S,T)


C
B
E

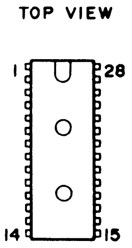
NPN TRANSISTER
2SC536SP(F,G),
etc.

TOP VIEW
1
8
4
5

NJM4558D
NJM2041DD

TOP VIEW
1
24
12
13

TDD1601
TDA1600


TOP VIEW
1
28
14
15

TEA-0665

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REPAIR BY ANY MARANTZ SERVICE CENTER–"**

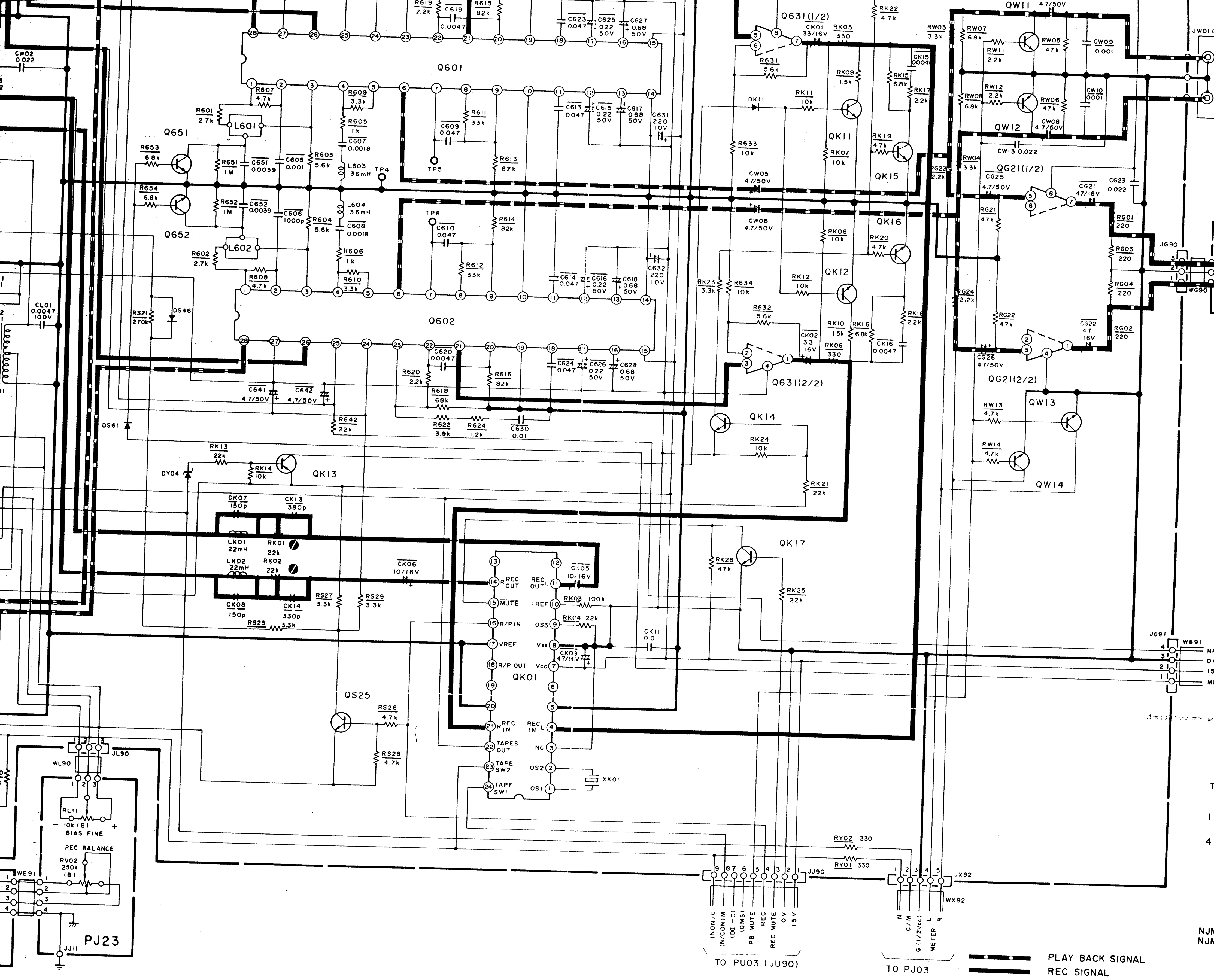
Kind of Common Parts

RESISTOR

R*** (1) GD05 - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - 160, Carbon film fixed resistor, ±5% 1/6W
C*** : **CERAMIC CAP.**
(1) DD1 - - - 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V
C*** : **CERAMIC CAP.**
(1) DK16 - - 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (≠)/FILM CAP. (≑)**
(1) EA - - - - - 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 - - 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

⁎ In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"


Q601
Q602
QK01
Q651
Q652
Q631(1/2)
Q631(2/2)
QG21(1/2)
QG21(2/2)
QW11
QW12
QW13
QW14
QK11
QK12
QK13
QK14
QK15
QK16
QK17
QS25
L601
L602
TP4
TP5
TP6
PJ23
JL90
WL90
WE91
JU90
JX92
WX92
J691
W691
JG90
WG90
XK01
RL11 10k(B) BIAS FINE
REC BALANCE RV02 250k (B)
RY02 330
RY01 330
(NON/C) (N/CON/M) (DQ-C) (QMS) PB MUTE REC REC MUTE 0V 15V
N C/M G(1/2Vcc) L METER R
TO PU03 (JU90)
TO PJ03
PLAY BACK SIGNAL
REC SIGNAL

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ON ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A REPAIR BY ANY MARANTZ SERVICE CENTER–"

Kind of Common Parts

RESISTOR

R*** (1) GD05 -- 140, Carbon film fixed resistor, ±5% 1/4W

R*** (2) GD05 -- 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**

(1) DD1 --- 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**

(1) DK16 -- 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

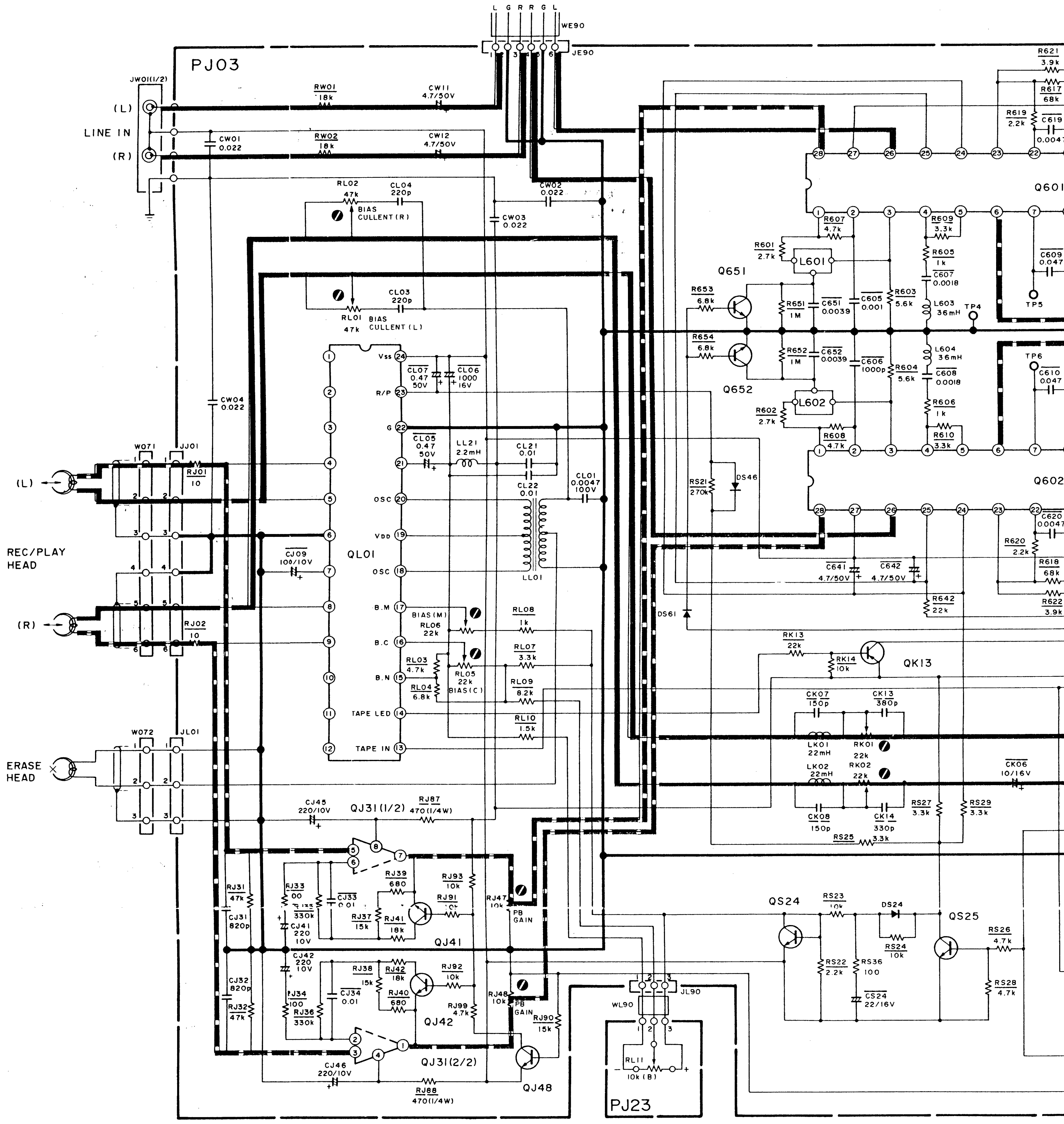
C*** : **ELECTROLY CAP. (⧣)/FILM CAP. (⩧)**

(1) EA ----- 10, Electrolytic condenser,
one-way lead type, tolerance ±20%

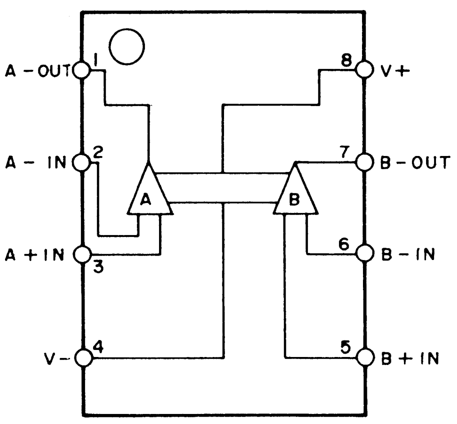
(2) DF15 -- 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the corr number of 10 figures by the procedure "ASSIGNMENT OF C PARTS CODES"

SCHEMATIC DIAGRAM

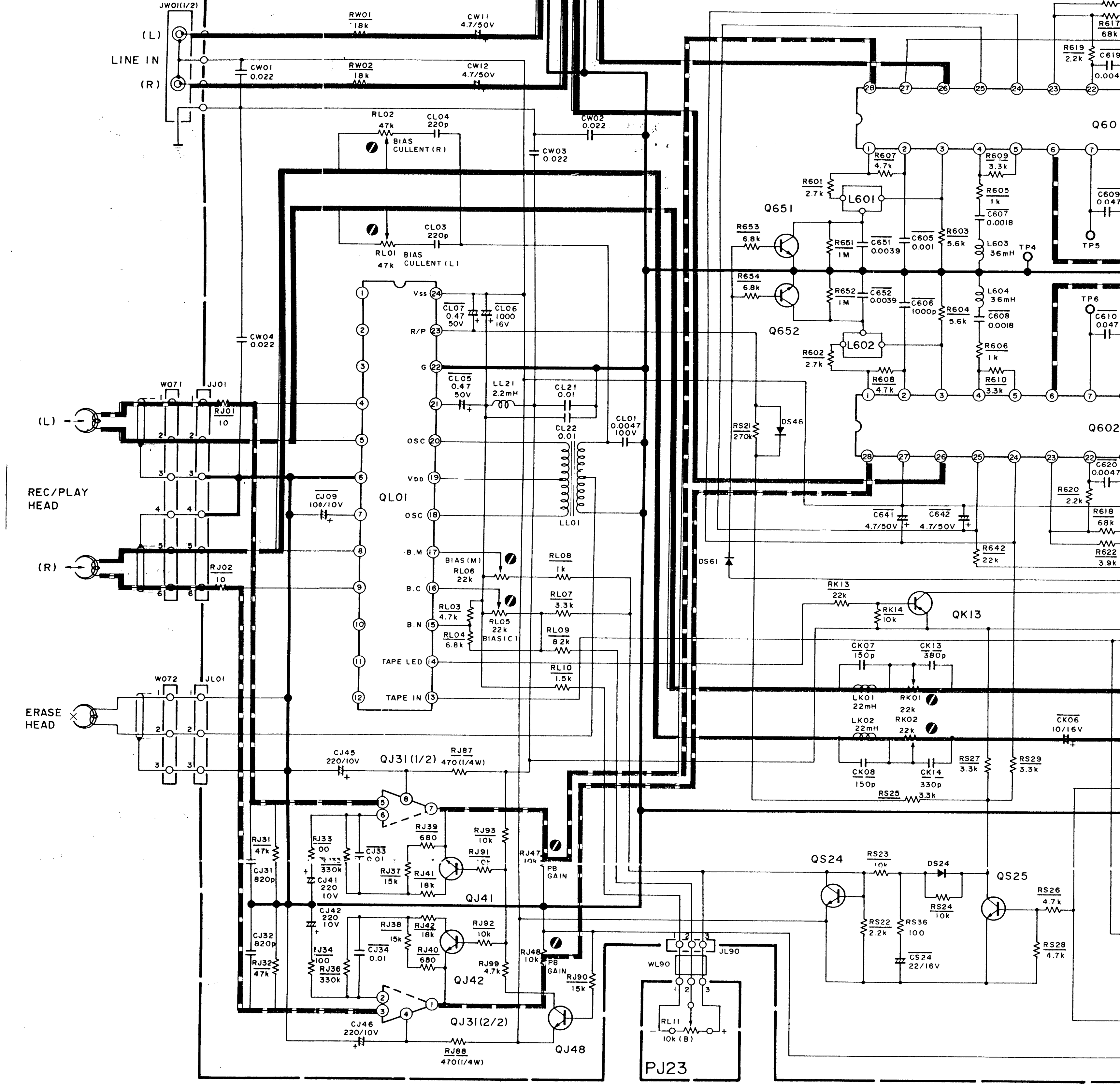

TO PJ33 (WE90)
(IN) (OUT)
L G R R G L
WE90
JE90
PJ03
JW01(1/2)
(L)
LINE IN
(R)
RW01 18k
CW11 4.7/50V
CW01 0.022
RW02 18k
CW12 4.7/50V
RL02 47k
CL04 220p
BIAS CULLENT(R)
CW02 0.022
CW03 0.022
CL03 220p
RL01 47k
BIAS CULLENT(L)
CW04 0.022
W071
JJ01
RJ01 10
RJ02 10
REC/PLAY HEAD
ERASE HEAD
W072
JL01
QL01
Vss
R/P
G
OSC
VDD
B.M
B.C
B.N
TAPE LED
TAPE IN
CL07 0.47 50V
CL06 1000 16V
CL05 0.47 50V
LL21 2.2mH
CL21 0.01
CL22 0.01
CL01 0.0047 100V
LL01
CJ09 100/10V
BIAS(M)
RL06 22k
RL08 1k
RL03 4.7k
RL05 22k
BIAS(C)
RL07 3.3k
RL04 6.8k
RL09 8.2k
RL10 1.5k
CJ45 220/10V
QJ31(1/2)
RJ87 470(1/4W)
RJ31 47k
CJ31 820p
RJ33 100
RJ35 330k
CJ33 0.01
CJ41 220 10V
RJ37 15k
RJ39 680
RJ41 18k
RJ93 10k
RJ91 10k
RJ47 10k
PB GAIN
QJ41
CJ42 220 10V
CJ32 820p
RJ32 47k
RJ34 100
RJ36 330k
CJ34 0.01
RJ38 15k
RJ42 18k
RJ40 680
RJ92 10k
RJ99 4.7k
RJ48 10k
PB GAIN
RJ90 15k
QJ42
QJ31(2/2)
CJ46 220/10V
RJ88 470(1/4W)
QJ48
WL90
JL90
RL11 10k(B)
PJ23
R621 3.9k
R617 68k
R619 2.2k
C619 0.0047
Q601
R607 4.7k
R609 3.3k
R601 2.7k
L601
R605 1k
C607 0.0018
C609 0.047
Q651
R653 6.8k
R651 1M
C651 0.0039
C605 0.001
R603 5.6k
L603 36mH
TP4
TP5
R654 6.8k
R652 1M
C652 0.0039
C606 1000p
R604 5.6k
L604 36mH
C608 0.0018
TP6
C610 0.047
Q652
L602
R602 2.7k
R608 4.7k
R606 1k
R610 3.3k
Q602
RS21 270k
DS46
C620 0.0047
R620 2.2k
R618 68k
R622 3.9k
C641 4.7/50V
C642 4.7/50V
R642 22k
DS61
RK13 22k
RK14 10k
QK13
CK07 150p
CK13 380p
LK01 22mH
RK01 22k
LK02 22mH
RK02 22k
CK06 10/16V
CK08 150p
CK14 330p
RS27 3.3k
RS29 3.3k
RS25 3.3k
QS24
RS23 10k
DS24
RS24 10k
QS25
RS26 4.7k
RS22 2.2k
RS36 100
CS24 22/16V
RS28 4.7k

(QJ31)

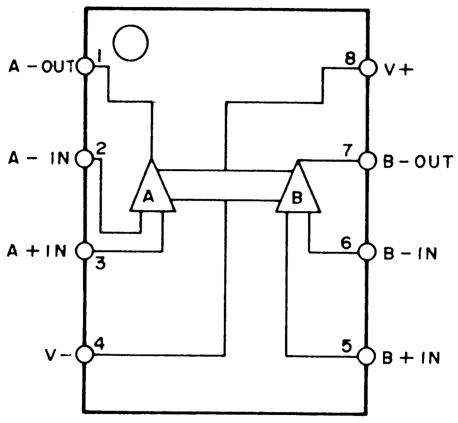

A-OUT
A- IN
A+IN
V-
V+
B-OUT
B-IN
B+IN
1
2
3
4
5
6
7
8
A
B

Components and wiring are subject to change for modification without notice.

NOTE ON SAFETY:


JW01(1/2)
(L)
LINE IN
(R)
RW01 18k
CW11 4.7/50V
CW01 0.022
RW02 18k
CW12 4.7/50V
RL02 47k
CL04 220p
BIAS CULLENT (R)
CW02 0.022
CW03 0.022
CL03 220p
RL01 47k
BIAS CULLENT (L)
CW04 0.022
Vss
R/P
G
OSC
VDD
B.M
B.C
B.N
TAPE LED
TAPE IN
QL01
CL07 0.47 50V
CL06 1000 16V
CL05 0.47 50V
LL21 2.2mH
CL21 0.01
CL22 0.01
CL01 0.0047 100V
LL01
CJ09 100/10V
BIAS(M)
RL06 22k
RL08 1k
RL07 3.3k
RL03 4.7k
RL05 22k BIAS(C)
RL04 6.8k
RL09 8.2k
RL10 1.5k
W071
JJ01
RJ01 10
RJ02 10
REC/PLAY HEAD
W072
JL01
ERASE HEAD
CJ45 220/10V
QJ31(1/2)
RJ87 470(1/4W)
RJ31 47k
CJ31 820p
RJ33 100
RJ35 330k
CJ33 0.01
CJ41 220 10V
RJ37 15k
RJ39 680
RJ41 18k
RJ93 10k
RJ91 10k
QJ41
RJ47 10k
PB GAIN
CJ42 220 10V
CJ32 820p
RJ32 47k
RJ34 100
RJ36 330k
CJ34 0.01
RJ38 15k
RJ42 18k
RJ40 680
RJ92 10k
RJ99 4.7k
QJ42
RJ48 10k
PB GAIN
RJ90 15k
QJ31(2/2)
CJ46 220/10V
RJ88 470(1/4W)
QJ48
WL90
JL90
RL11 10k(B)
PJ23
Q651
Q652
R601 2.7k
R607 4.7k
L601
R653 6.8k
R654 6.8k
R651 1M
R652 1M
C651 0.0039
C652 0.0039
C605 0.001
C606 1000p
R603 5.6k
R604 5.6k
R609 3.3k
R605 1k
C607 0.0018
L603 36mH
L604 36mH
C608 0.0018
R606 1k
R610 3.3k
R608 4.7k
R602 2.7k
L602
TP4
TP5
TP6
C609 0.047
C610 0.047
Q60
Q602
R617 68k
R619 2.2k
C619 0.004
RS21 270k
DS46
C641 4.7/50V
C642 4.7/50V
R642 22k
C620 0.0047
R620 2.2k
R618 68k
R622 3.9k
DS61
RK13 22k
RK14 10k
QK13
CK07 150p
CK13 380p
LK01 22mH
RK01 22k
LK02 22mH
RK02 22k
CK06 10/16V
CK08 150p
CK14 330p
RS27 3.3k
RS29 3.3k
RS25 3.3k
QS24
RS23 10k
DS24
QS25
RS24 10k
RS22 2.2k
RS36 100
CS24 22/16V
RS26 4.7k
RS28 4.7k

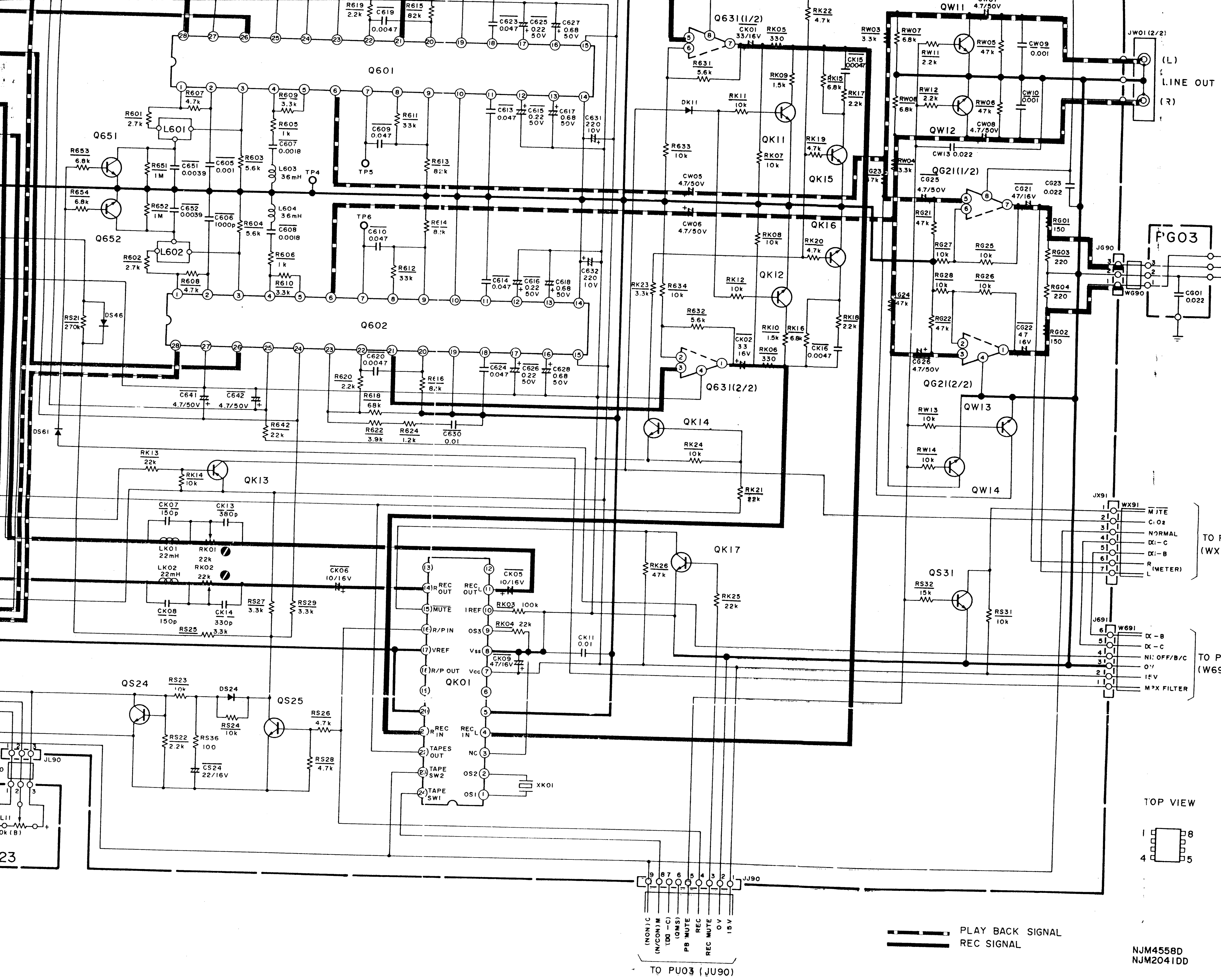
(QJ31)


A-OUT
1
8
V+
A- IN
2
7
B-OUT
A
B
A+IN
3
6
B-IN
V-
4
5
B+IN

Components and wiring are subject to change for modification without notice.

NOTE ON SAFETY:

Symbol ⚠ Fire or electrical shock hazard. Only original partrs should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.


Q601
Q602
Q651
Q652
QK01
QK11
QK12
QK13
QK14
QK15
QK16
QK17
QS24
QS25
QS31
QW11
QW12
QW13
QW14
Q631(1/2)
Q631(2/2)
QG21(1/2)
QG21(2/2)
L601
L602
TP4
TP5
TP6
JW01 (2/2)
(L)
LINE OUT
(R)
PG03
JG90
WG90
JX91
WX91
MUTE
NORMAL
(METER)
J691
W691
NR OFF/B/C
MPX FILTER
JL90
JU90
XK01
(NONIC)
(N/CONIM)
(DX-C)
(QMS)
PB MUTE
REC
REC MUTE
0V
15V
TO PU03 (JU90)
PLAY BACK SIGNAL
REC SIGNAL
TOP VIEW
NJM4558D
NJM2041DD

tice.

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSON
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REPAIR BY ANY MARANTZ SERVICE CENTER–"

Kind of Common Parts

RESISTOR

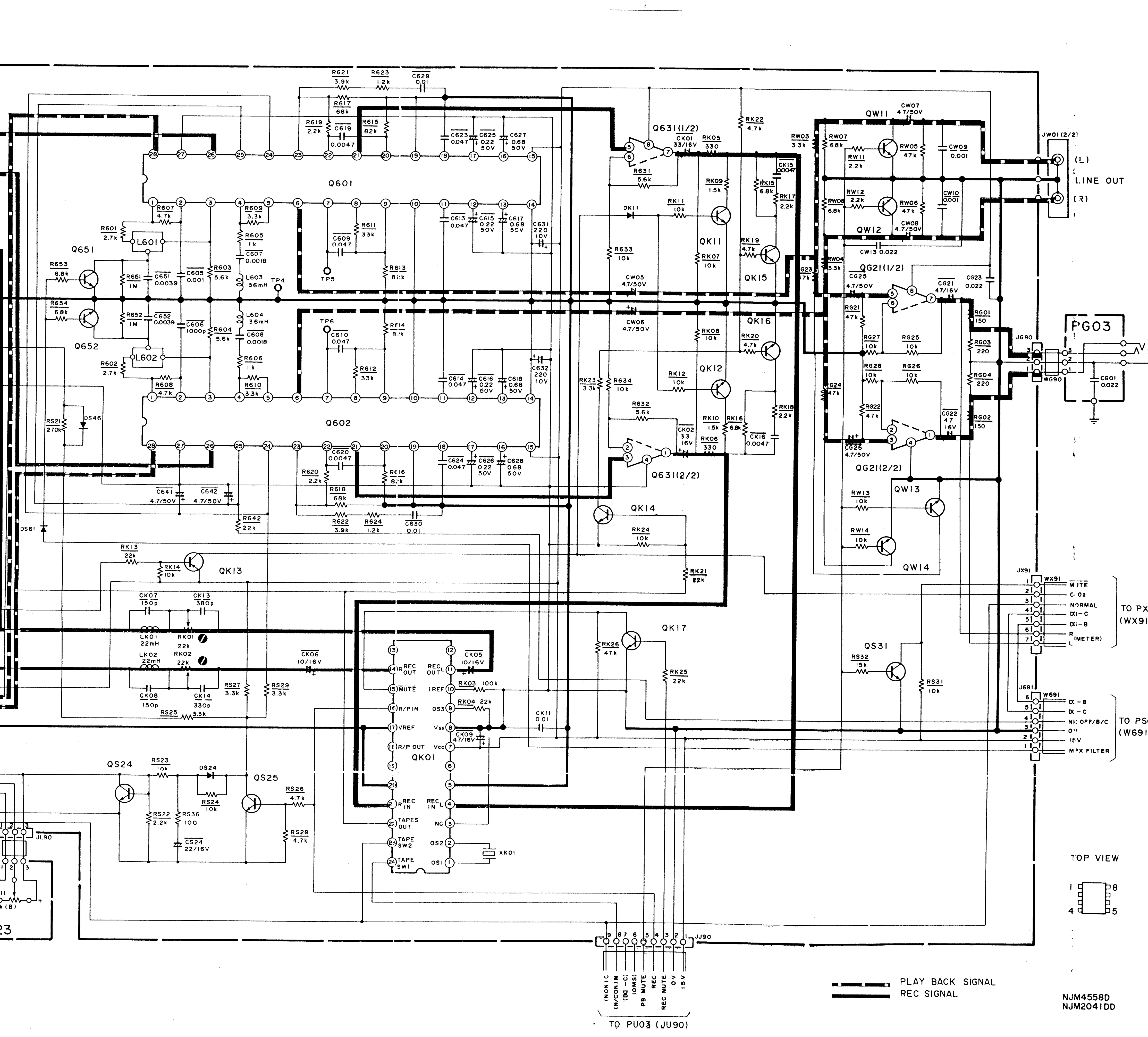
R*** (1) GD05 - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**
(1) DD1 - - - 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**
(1) DK16 - - 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (⧧)/FILM CAP. (⧧)**
(1) EA - - - - - 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 - - 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the co
number of 10 figures by the procedure "ASSIGNMENT OF
PARTS CODES"


Q601
Q602
Q651
Q652
L601
L602
TP4
TP5
TP6
Q631(1/2)
Q631(2/2)
QK11
QK12
QK13
QK14
QK15
QK16
QK17
QK01
QW11
QW12
QW13
QW14
QG21(1/2)
QG21(2/2)
QS24
QS25
QS31
JW01(2/2)
(L)
LINE OUT
(R)
PG03
JG90
WG90
JX91
WX91
MUTE
NORMAL
(METER)
TO PX
(WX91
J691
W691
OFF/B/C
MPX FILTER
TO PS
(W691
JL90
JJ90
(NONIC)
(N/CONIM)
PB MUTE
REC
REC MUTE
0V
15V
TO PU03 (JU90)
XK01
DS61
DS46
DK11
DS24
PLAY BACK SIGNAL
REC SIGNAL
TOP VIEW
NJM4558D
NJM2041DD

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSON
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REPAIR BY ANY MARANTZ SERVICE CENTER–"

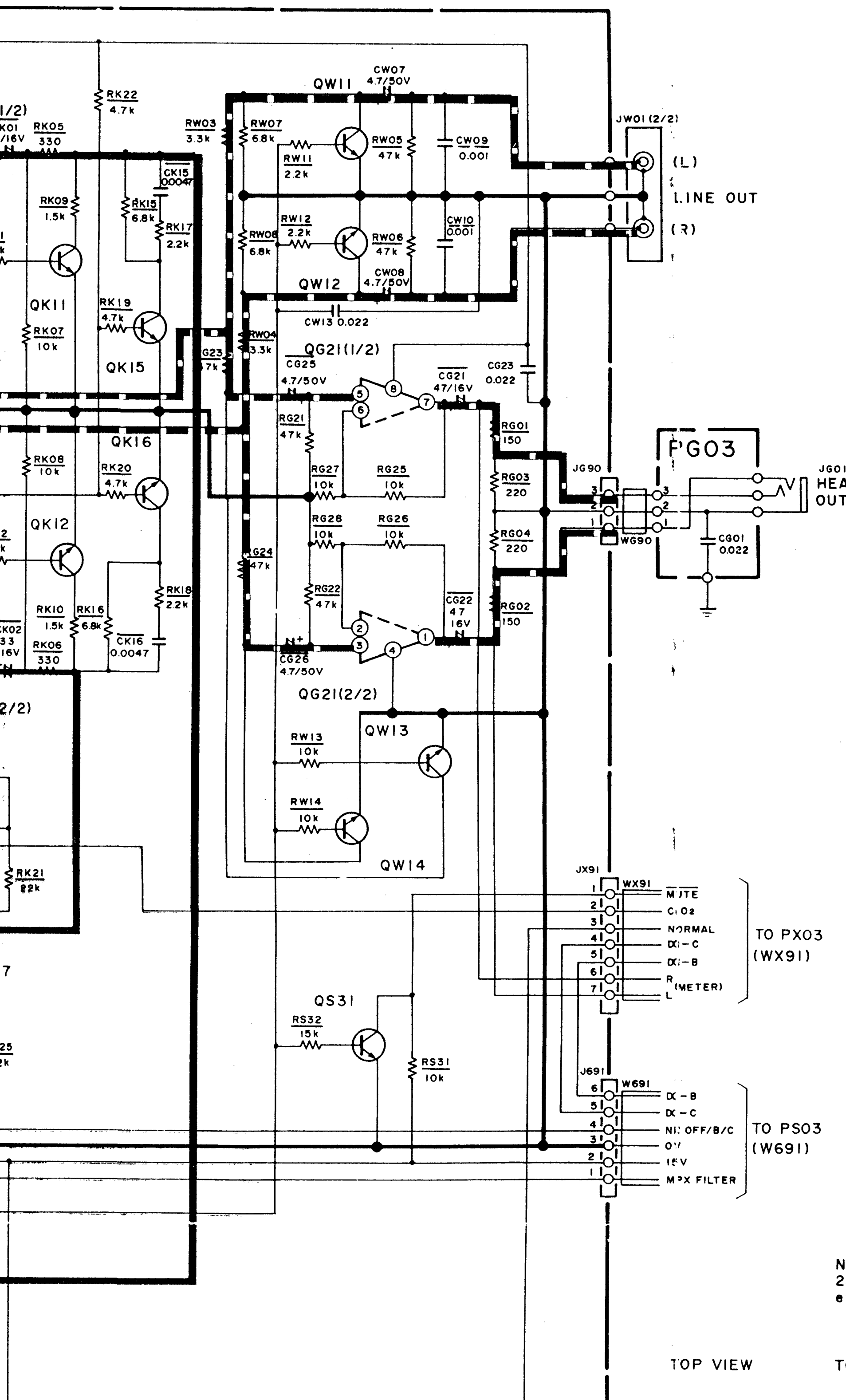
Kind of Common Parts

RESISTOR

R***	(1) GD05 -- 140,	Carbon film fixed resistor, ±5% 1/4W
R***	(2) GD05 -- 160,	Carbon film fixed resistor, ±5% 1/6W
C***	: CERAMIC CAP.	
	(1) DD1 --- 370,	Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V
C***	: CERAMIC CAP.	
	(1) DK16 -- 300,	High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V
C***	: ELECTROLY CAP. (⫩)/FILM CAP. (⫩)	
	(1) EA ----- 10,	Electrolytic condenser, one-way lead type, tolerance ±20%
	(2) DF15 -- 350,	Plastic film condenser

otice.

MODEL SD-45II



QW11
CW07 4.7/50V
RK22 4.7k
RW03 3.3k
RW07 6.8k
RW11 2.2k
RW05 47k
CW09 0.001
JW01(2/2)
(L)
LINE OUT
(R)
RK05 330
RK09 1.5k
RK15 6.8k
CK15 0.0047
RK17 2.2k
RW12 2.2k
RW06 6.8k
RW06 47k
CW10 0.001
QW12
CW08 4.7/50V
QK11
RK07 10k
RK19 4.7k
QK15
CW13 0.022
RW04 3.3k
QG21(1/2)
CG25 4.7/50V
CG21 47/16V
CG23 0.022
RG21 47k
RG01 150
PG03
QK16
RK08 10k
RK20 4.7k
RG27 10k
RG25 10k
JG90
RG03 220
JG01
HEADPHONE OUT
QK12
RG28 10k
RG26 10k
RG04 220
WG90
CG01 0.022
RG24 47k
RK18 22k
RG22 47k
CG22 47 16V
RG02 150
RK10 1.5k
RK16 6.8k
CK16 0.0047
RK06 330
CG26 4.7/50V
QG21(2/2)
QW13
RW13 10k
RW14 10k
QW14
RK21 22k
JX91
WX91
MUTE
CrO2
NORMAL
α-C
α-B
R
L (METER)
TO PX03 (WX91)
QS31
RS32 15k
RS31 10k
J691
W691
α-B
α-C
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
JJ90
PLAY BACK SIGNAL
REC SIGNAL

Q601,Q602

TEA-0665

Q631,QG21

NJM4558D

Q651,Q652,QW13,QW14
QJ41,QJ42,QJ48,QK11
QK12,QK14~QK17
QS24,QS25,QS31

NPN TRANSISTER

QW11,QW12

2SD1302(S,T)

QL01

TDA1600

QJ31

NJM2041DD

QK01

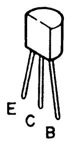
TDD1601

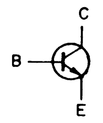
QK13

PNP TRANSISTER

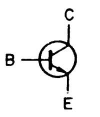
DK11,DS24,DS46,DS61

1SS133,1SS176,MA165

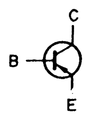




2SD1302(S,T)

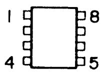


NPN TRANSISTER
2SC536SP(F,G),
etc.



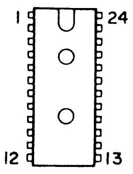
PNP TRANSISTER
2SA608SP(F,G),
etc.

TOP VIEW



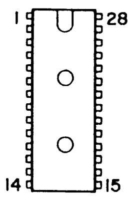
NJM4558D
NJM2041DD

TOP VIEW



TDD1601
TDA1600

TOP VIEW



TEA-0665

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Kind of Common Parts

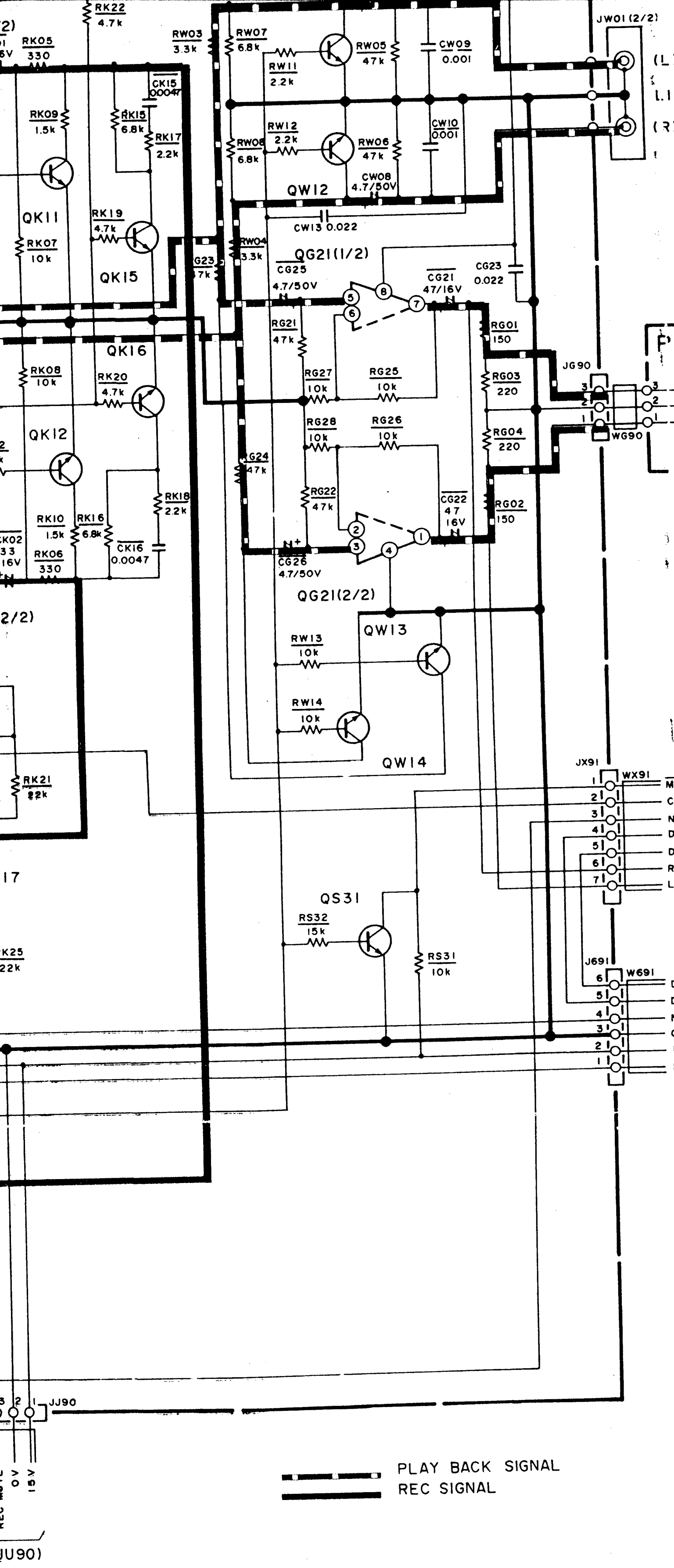
RESISTOR

R*** (1) GD05 - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - 160, Carbon film fixed resistor, ±5% 1/6W

C*** : CERAMIC CAP.
(1) DD1 - - - 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

C*** : CERAMIC CAP.
(1) DK16 - - 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

C*** : ELECTROLY CAP. (⫩)/FILM CAP. (⫩)
(1) EA - - - - - 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 - - 350, Plastic film condenser,


JW01(2/2)
(L)
LINE OUT
(R)
RK22 4.7k
RW03 3.3k
RW07 6.8k
RW11 2.2k
RW05 47k
CW09 0.001
RK05 330
CK15 0.0047
RK09 1.5k
RK15 6.8k
RK17 2.2k
RW12 2.2k
RW08 6.8k
RW06 47k
CW10 0.001
QW12
CW08 4.7/50V
QK11
RK19 4.7k
RK07 10k
QK15
CW13 0.022
RW04 3.3k
QG21(1/2)
CG25 4.7/50V
CG21 47/16V
CG23 0.022
RG21 47k
RG01 150
QK16
RK08 10k
RK20 4.7k
RG27 10k
RG25 10k
RG03 220
JG90
PG03
JG01
HEADPHONE OUT
WG90
QK12
RG28 10k
RG26 10k
RG04 220
CG01 0.022
RG24 47k
RG22 47k
CG22 47 16V
RG02 150
RK18 2.2k
RK10 1.5k
RK16 6.8k
CK16 0.0047
RK06 330
CG26 4.7/50V
QG21(2/2)
QW13
RW13 10k
RW14 10k
QW14
RK21 22k
JX91
WX91
MUTE
CrO2
NORMAL
DX-C
DX-B
R (METER)
L
TO PX03 (WX91)
QS31
RS32 15k
RS31 10k
RK25 22k
J691
W691
DX-B
DX-C
NR OFF/B/C
0V
15V
MPX FILTER
TO PS03 (W691)
JJ90
JU90)
PLAY BACK SIGNAL
REC SIGNAL

NJM4558D

Q651,Q652,QW13,QW14
QJ41,QJ42,QJ48,QK11
QK12,QK14~QK17
QS24,QS25,QS31

NPN TRANSISTER

QW11,QW12

2SD1302(S,T)

QL01

TDA1600

QJ31

NJM2041DD

QK01

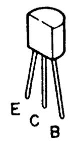
TDD1601

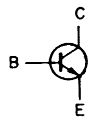
QK13

PNP TRANSISTER

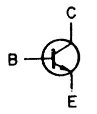
DK11,DS24,DS46,DS61

1SS133,1SS176,MA165

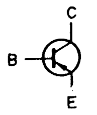




2SD1302(S,T)

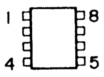


NPN TRANSISTER
2SC536SP(F,G),
etc.



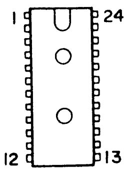
PNP TRANSISTER
2SA608SP(F,G),
etc.

TOP VIEW



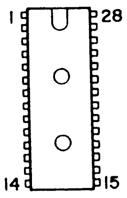
NJM4558D
NJM2041DD

TOP VIEW



TDD1601
TDA1600

TOP VIEW



TEA-0665

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Kind of Common Parts

RESISTOR

R*** (1) GD05 - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - 160, Carbon film fixed resistor, ±5% 1/6W

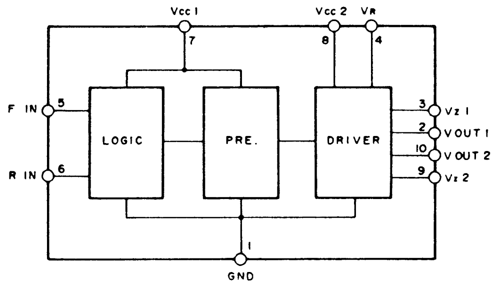
C*** : **CERAMIC CAP.**
(1) DD1 - - - 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 ~ N1000 50V

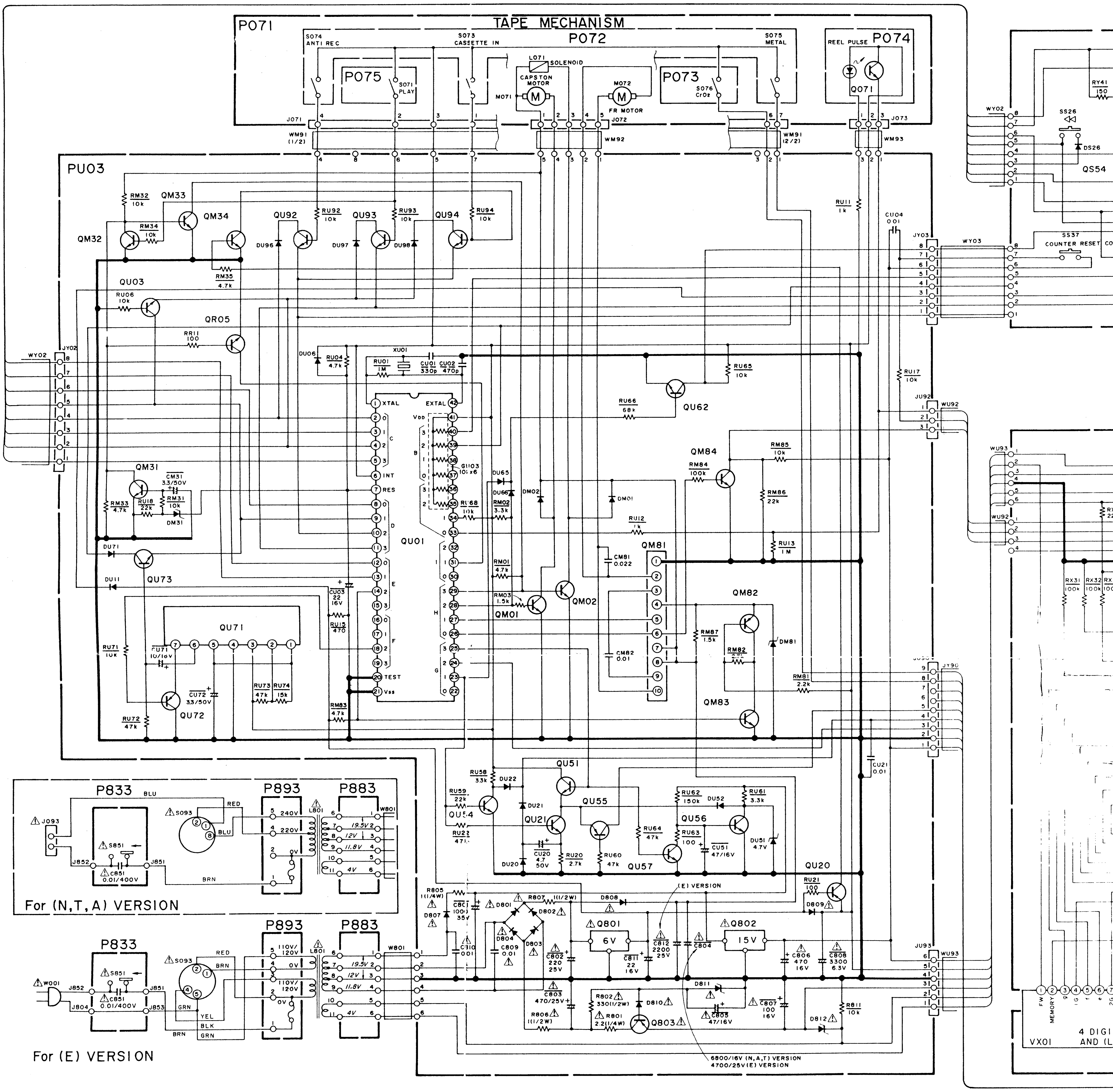
C*** : **CERAMIC CAP.**
(1) DK16 - - 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (⧣)/FILM CAP. (⫩)**
(1) EA - - - - - 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 - - 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"

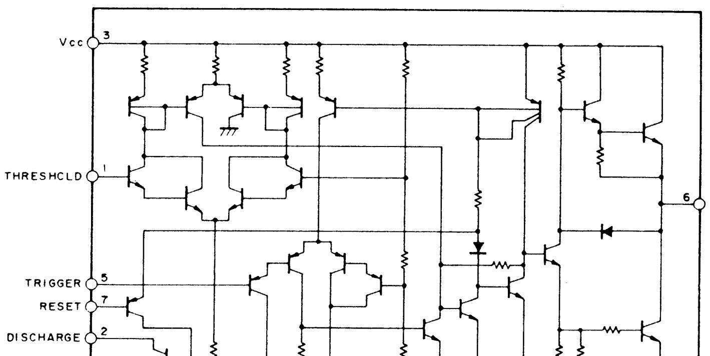
(QM81)


Vcc 1
Vcc 2
VR
F IN
R IN
LOGIC
PRE.
DRIVER
Vz 1
VOUT 1
VOUT 2
Vz 2
GND

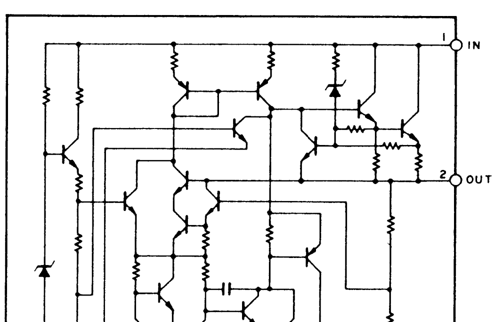

TAPE MECHANISM
P071
P072
P073
P074
P075
S074 ANTI REC
S073 CASSETTE IN
S075 METAL
S071 PLAY
S076 CrO2
REEL PULSE
L071 SOLENOID
CAPSTON MOTOR
M071
M072
FR MOTOR
Q071
J071
J072
J073
WM91 (1/2)
WM91 (2/2)
WM92
WM93
PU03
QM32
QM33
QM34
QU92
QU93
QU94
QU03
QR05
QM31
QU73
QU71
QU72
QU01
QU62
QM84
QM81
QM82
QM83
QM01
QM02
XTAL
EXTAL
INT
RES
TEST
Vss
VDD
XU01
G1103 10k x6
WY02
JY02
JY03
WY03
JU92
WU92
JY90
JU93
WU93
P833
P893
P883
BLU
RED
BRN
J093
S093
S851
C851 0.01/400V
J852
J851
240V
220V
110V/120V
0V
L801
W801
19.5V
12V
11.8V
4V
For (N,T,A) VERSION
W001
J804
J853
GRN
YEL
BLK
For (E) VERSION
QU51
QU54
QU21
QU55
QU56
QU57
QU20
Q801
Q802
Q803
6V
15V
(E) VERSION
6800/16V (N,A,T) VERSION
4700/25V (E) VERSION
SS26
DS26
QS54
SS37 COUNTER RESET
RY41 150
VX01
4 DIGI
AND (L
MEMORY

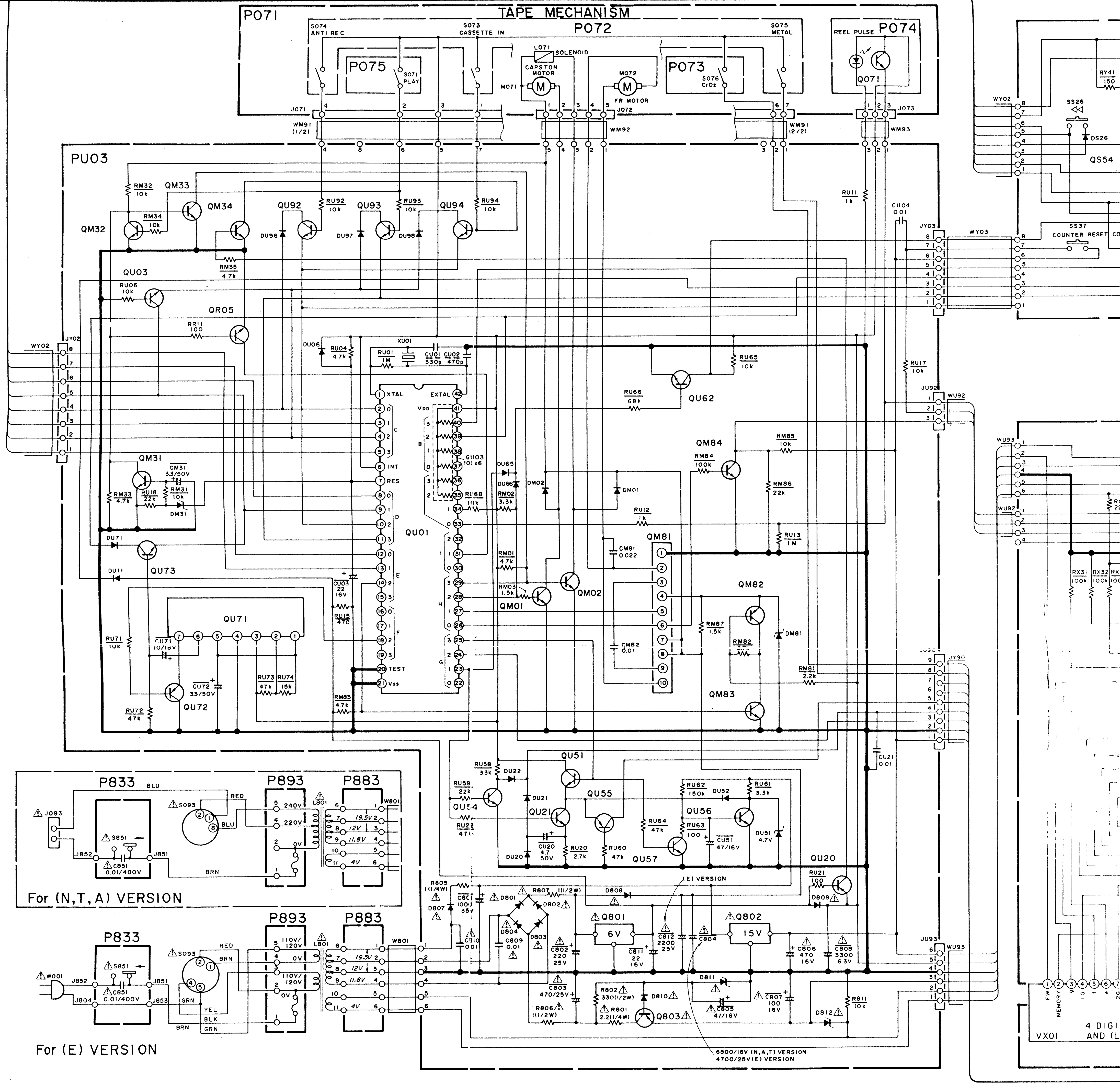
weitere Unterla
leider nicht vo

(QU71)

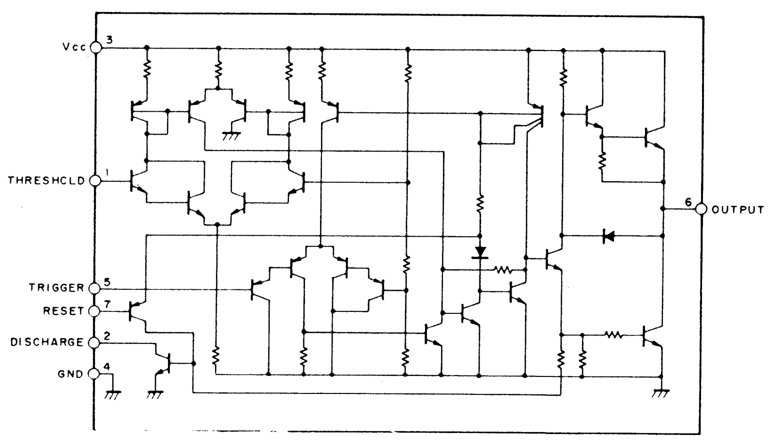

Vcc
THRESHOLD
OUTPUT
TRIGGER
RESET
DISCHARGE

(Q801, Q802)

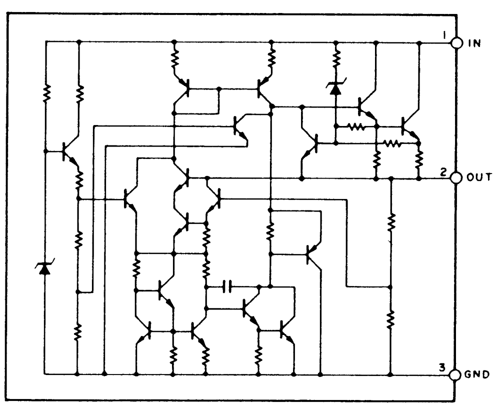



TAPE MECHANISM
P071
P072
P073
P074
P075
S074 ANTI REC
S073 CASSETTE IN
S075 METAL
S071 PLAY
S076 CrO2
REEL PULSE
Q071
L071 SOLENOID
CAPSTON MOTOR
M071
M072
FR MOTOR
J071
J072
J073
WM91 (1/2)
WM92
WM91 (2/2)
WM93
PU03
QM32
QM33
QM34
QU92
QU93
QU94
QU03
QR05
QM31
QU73
QU71
QU72
QU01
QU62
QM84
QM81
QM82
QM83
QM01
QM02
XU01
XTAL
EXTAL
INT
RES
TEST
Vss
VDD
G1103 10k x6
JY02
JY03
WY02
WY03
JU92
WU92
JU93
WU93
JY90
SS26
DS26
QS54
SS37 COUNTER RESET
QU51
QU55
QU54
QU21
QU56
QU57
QU20
P833
P893
P883
BLU
RED
BRN
GRN
YEL
BLK
J093
S093
S851
C851 0.01/400V
J852
J851
J853
J804
W001
L801
W801
240V
220V
110V/120V
0V
19.5V
12V
11.8V
4V
For (N,T,A) VERSION
For (E) VERSION
Q801
Q802
Q803
6V
15V
(E) VERSION
6800/16V (N,A,T) VERSION
4700/25V (E) VERSION
VX01
4 DIGI
AND (L
MEMORY

(QU71)

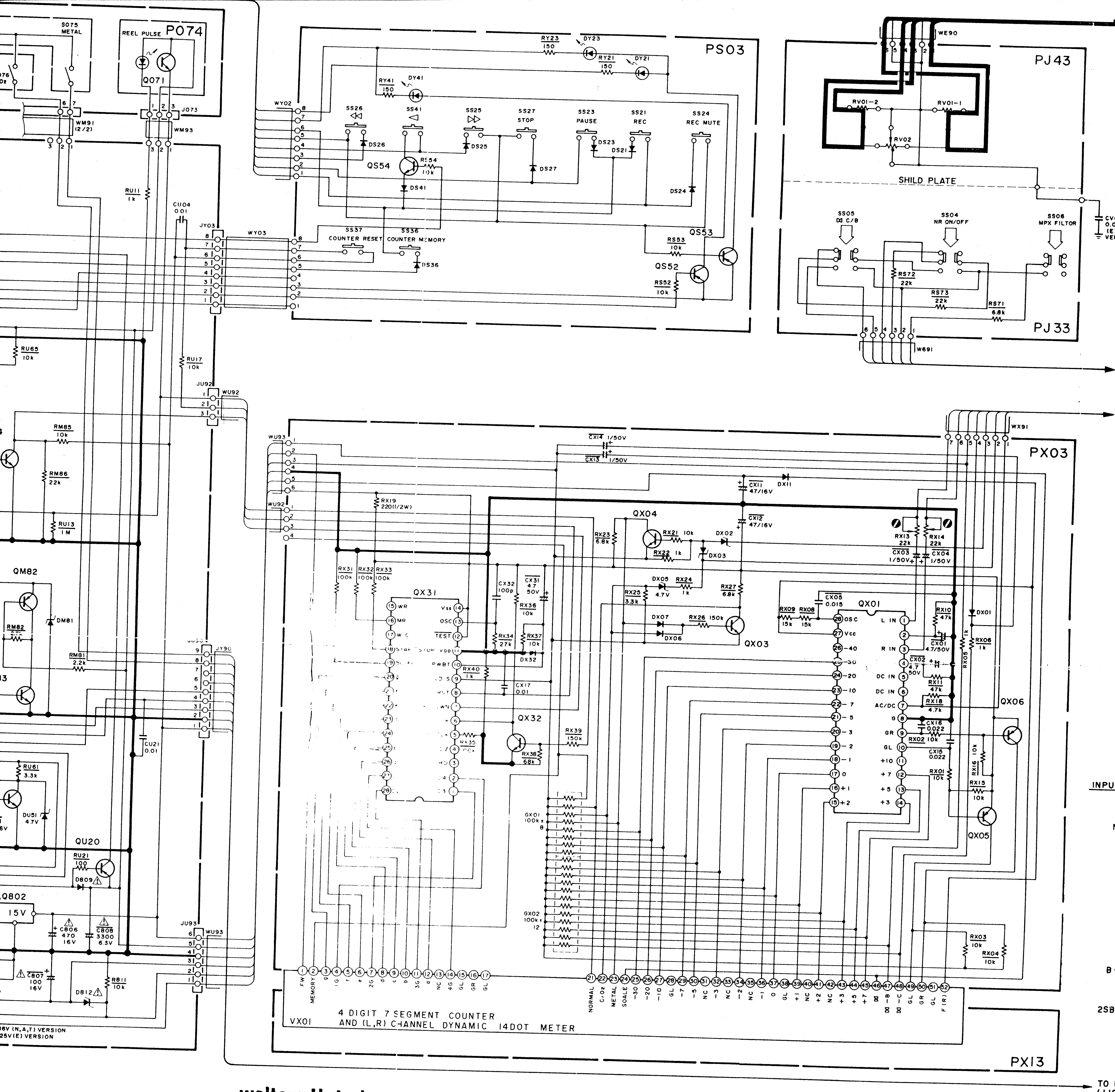

Vcc
THRESHOLD
TRIGGER
RESET
DISCHARGE
GND
OUTPUT
3
1
5
7
2
4
6

(Q801, Q802)

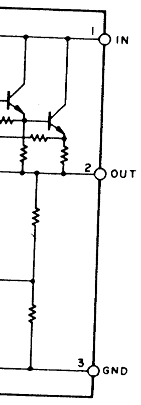

IN
OUT
GND
1
2
3

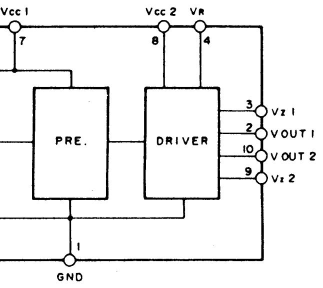
weitere Unterla
leider nicht vor

MZ 1681

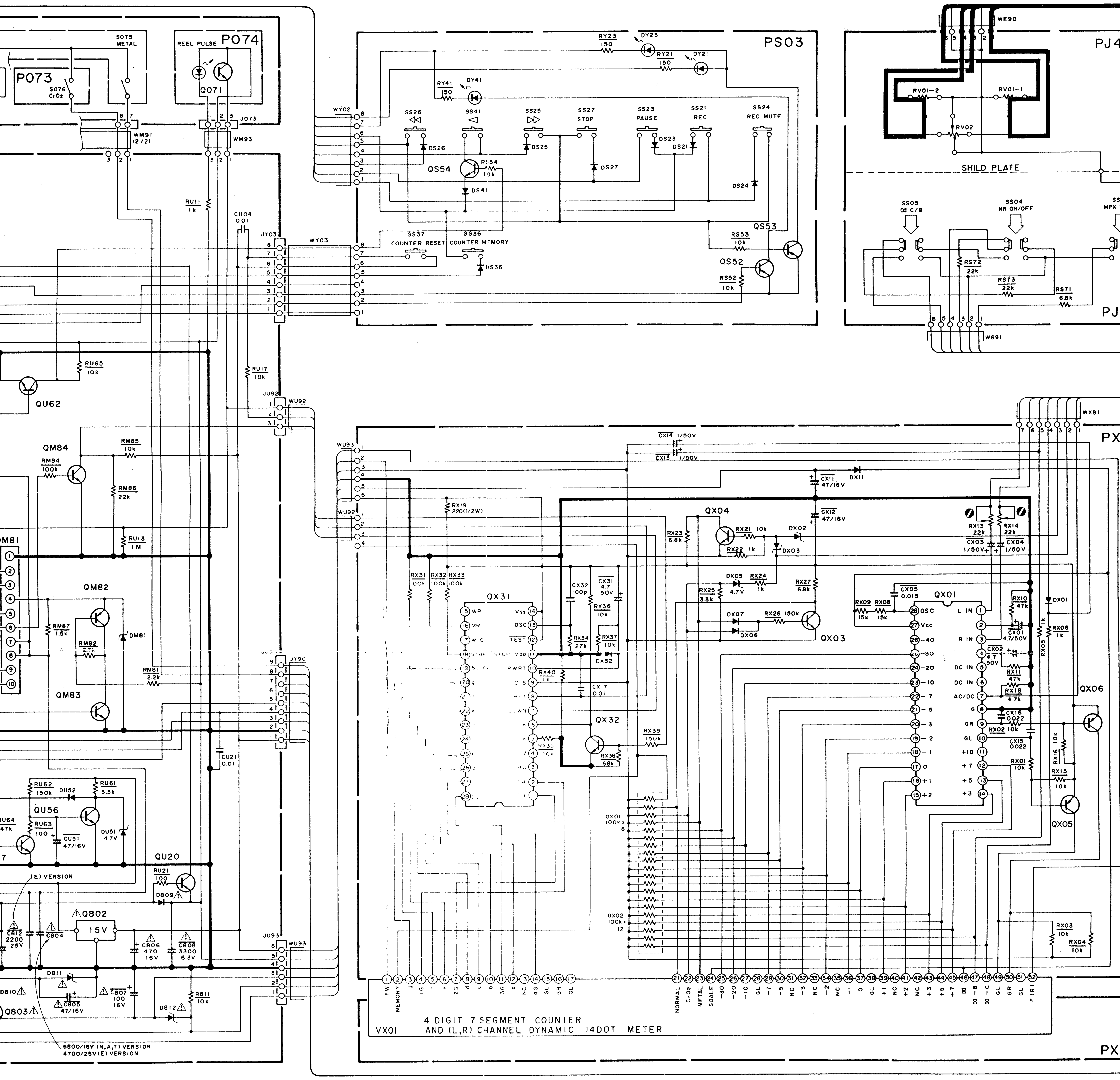

P074
REEL PULSE
Q071
S075 METAL
WM91 (2/2)
WM93
J073
PS03
PJ43
WE90
RV01-2
RV01-1
RV02
SHILD PLATE
SS05 DX C/B
SS04 NR ON/OFF
SS06 MPX FILTOR
RS72 22k
RS73 22k
RS71 6.8k
PJ33
W691
WY02
WY03
JY03
SS26
SS41
SS25
SS27 STOP
SS23 PAUSE
SS21 REC
SS24 REC MUTE
SS37 COUNTER RESET
SS36 COUNTER MEMORY
QS54
QS53
QS52
RS53 10k
RS52 10k
RY23 150
RY21 150
RY41 150
DY23
DY21
DY41
CU04 0.01
RU11 1k
RU65 10k
RU17 10k
JU92
WU92
RM85 10k
RM86 22k
RU13 1M
QM82
RM82
DM81
RM81 2.2k
JY90
CU21 0.01
RU61 3.3k
DU51 4.7V
QU20
RU21 100
D809
Q802
15V
C806 470 16V
C808 3300 6.3V
C807 100 16V
R811 10k
D812
JU93
WU93
16V (N,A,T) VERSION
25V(E) VERSION
WX91
PX03
CX14 1/50V
CX13 1/50V
CX11 47/16V
DX11
CX12 47/16V
RX19 220(1/2W)
QX04
RX23 6.8k
RX21 10k
RX22 1k
DX02
DX03
RX13 22k
RX14 22k
CX03 1/50V
CX04 1/50V
RX31 100k
RX32 100k
RX33 100k
QX31
CX32 100p
CX31 4.7 50V
RX36 10k
DX05 4.7V
RX24 1k
RX25 3.3k
RX27 6.8k
CX05 0.015
QX01
RX09 15k
RX08 15k
RX10 47k
DX01
DX07
RX26 150k
DX06
QX03
RX34 27k
RX37 10k
DX32
RX40 1k
CX17 0.01
QX32
RX35 4.7k
RX38 68k
RX39 150k
CX01 4.7/50V
CX02 4.7 50V
RX11 47k
RX18 4.7k
RX05
RX06 1k
QX06
CX16 0.022
RX02 10k
CX15 0.022
RX16 10k
RX01 10k
RX15 10k
QX05
GX01 100k x 8
GX02 100k x 12
RX03 10k
RX04 10k
VX01
4 DIGIT 7 SEGMENT COUNTER AND (L,R) CHANNEL DYNAMIC 14DOT METER
PX13
INPU
TO (JJ9

weitere Unterlagen
leider nicht vorhanden


1 IN
2 OUT
3 GND

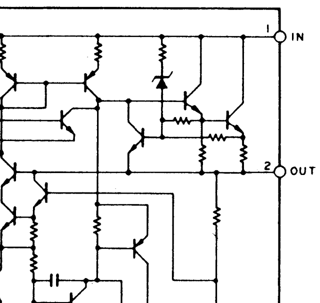


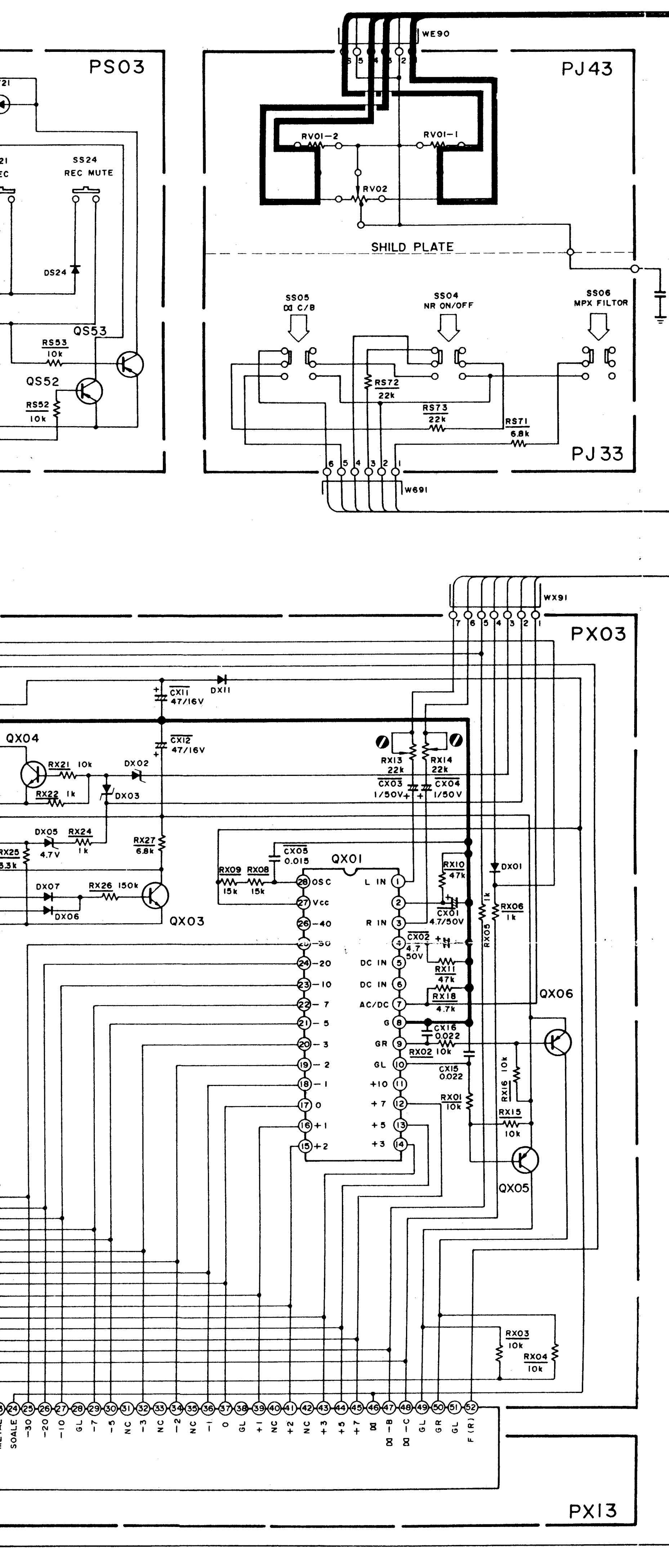
Vcc 1
Vcc 2
VR
PRE.
DRIVER
Vz 1
V OUT 1
V OUT 2
Vz 2
GND



P073
P074
REEL PULSE
Q071
S075 METAL
S076 CrO2
WM91 (2/2)
WM93
J073
RU11 1k
CU04 0.01
JY03
WY03
WY02
PS03
RY23 150
DY23
RY21 150
DY21
RY41 150
DY41
SS26
SS41
SS25
SS27 STOP
SS23 PAUSE
SS21 REC
SS24 REC MUTE
DS26
DS25
DS27
DS23
DS21
DS24
DS41
QS54
RS54 10k
SS37 COUNTER RESET
SS36 COUNTER MEMORY
DS36
RS53 10k
QS53
QS52
RS52 10k
WE90
PJ4
RV01-2
RV01-1
RV02
SHILD PLATE
SS05 DD C/B
SS04 NR ON/OFF
MPX
RS72 22k
RS73 22k
RS71 6.8k
W691
PJ
RU65 10k
QU62
RU17 10k
JU92
WU92
QM84
RM84 100k
RM85 10k
RM86 22k
RU13 1M
QM81
QM82
RM87 1.5k
RM82
DM81
RM81 2.2k
QM83
JY90
CU21 0.01
RU62 150k
DU52
RU61 3.3k
QU56
RU63 100
CU51 47/16V
DU51 4.7V
RU64 47k
QU20
RU21 100
D809
(E) VERSION
Q802
15V
C812 2200 25V
C804
C806 470 16V
C808 3300 6.3V
JU93
WU93
D811
D810
C805 47/16V
C807 100 16V
D812
RU11 10k
Q803
6800/16V (N,A,T) VERSION
4700/25V(E) VERSION
WX91
PX
CX14 1/50V
CX13 1/50V
CX11 47/16V
DX11
CX12 47/16V
RX19 220 (1/2W)
QX04
RX21 10k
RX22 1k
DX02
DX03
RX23 6.8k
DX05 4.7V
RX24 1k
RX25 3.3k
RX27 6.8k
DX07
RX26 150k
DX06
QX03
RX31 100k
RX32 100k
RX33 100k
CX32 100p
CX31 47 50V
RX36 10k
RX34 27k
RX37 10k
DX32
QX31
WR
MR
Vss
OSC
TEST
VDD
RX40 1k
CX17 0.01
QX32
RX39 150k
RX35
RX38 68k
GX01 100k x 8
GX02 100k x 12
RX13 22k
RX14 22k
CX03 1/50V
CX04 1/50V
CX05 0.015
RX09 15k
RX08 15k
QX01
OSC
Vcc
L IN
R IN
DC IN
AC/DC
G
GR
GL
RX10 47k
CX01 4.7/50V
CX02 4.7 50V
RX11 47k
RX18 4.7k
CX16 0.022
RX02 10k
CX15 0.022
RX01 10k
DX01
RX05 1k
RX06 1k
QX06
RX16 10k
RX15 10k
QX05
RX03 10k
RX04 10k
-40
-30
-20
-10
-7
-5
-3
-2
-1
0
+1
+2
+3
+5
+7
+10
FW
MEMORY
NORMAL
CrO2
METAL
SCALE
NC
F(R)
VX01
4 DIGIT 7 SEGMENT COUNTER
AND (L,R) CHANNEL DYNAMIC 14DOT METER
PX

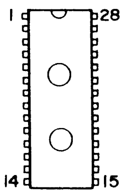
weitere Unterlagen
leider nicht vorhanden




PS03
SS24
REC MUTE
DS24
QS53
RS53 10k
QS52
RS52 10k
WE90
TO PJ03 (JE90)
PJ43
RV01-2
RV01-1
RV02
SHILD PLATE
CV01 0.01 (E) VERSION
SS05 DD C/B
SS04 NR ON/OFF
SS06 MPX FILTOR
RS72 22k
RS73 22k
RS71 6.8k
PJ33
W691
TO PJ03 (J691)
TO PJ03 (JX91)
WX91
PX03
CX11 47/16V
DX11
CX12 47/16V
QX04
RX21 10k
DX02
RX22 1k
DX03
DX05
RX24 1k
RX27 6.8k
RX25 3.3k
4.7V
DX07
RX26 150k
DX06
QX03
RX13 22k
RX14 22k
CX03 1/50V
CX04 1/50V
CX05 0.015
QX01
RX09 15k
RX08 15k
OSC
Vcc
-40
-30
-20
-10
-7
-5
-3
-2
-1
0
+1
+2
L IN
R IN
DC IN
DC IN
AC/DC
G
GR
GL
+10
+7
+5
+3
RX10 47k
DX01
RX05 1k
RX06 1k
CX01 4.7/50V
CX02 4.7 50V
RX11 47k
RX18 4.7k
QX06
CX16 0.022
RX02 10k
CX15 0.022
RX16 10k
RX01 10k
RX15 10k
QX05
RX03 10k
RX04 10k
SCALE
NC
GL
DD
F(R)
PX13
TO PJ03 (JJ90)

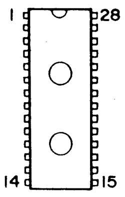
Q071	PHOTO UNIT
QS52,QS53,QU55,QU20 QM82,QU72,QX05,QX06	PNP TRANSISTER
QS54,QU51,QU54,QU56 QU57,QM31~QM34 QU21,QU92~QU94 QM93,QM94,QU62,QU73 QX03,QX04	NPN TRANSISTER
QM01,QM02	2SD1379
QU01	LM640202A
QM81	BA6109
QU71	BA222
Q801	NJM78M06A
Q802	NJM78M15A
Q803	2SB891(Q,R)
QX31	TM4028A
QX32	2SC3311A(Q,R)
QX01	BA6805A
DS21,DS23~DS27,DU65 DS36,DS41,DU52,DU06,DU66 DU11,DU20~DU22,DU96 DU97,DU98,DU71,D810 DX32,DX01,DX06,DX07	1SS133,1SS176,MA165
DY21	SLP981C(RED)
DY23	SLP481C(ORG)
DY41	SLP281F(GRN)
DM01,DM02,D807~D809	1SR35,RL103,DSF10C
DU51,DM31,D812,DX05	4.7V ZENER
DM81	RD4.7JB2
D801~D804	1SR35-200
D811,DX02	14V ZENER
DX03	24V ZENER
DX11	1SR35-200

TOP VIEW



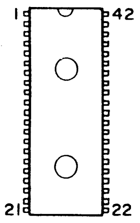
BA6805A

TOP VIEW

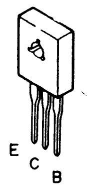


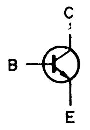
TM4028A

TOP VIEW

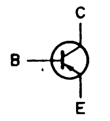


LM640202A

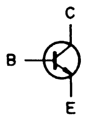




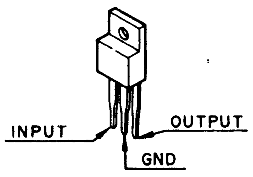
2SD1379



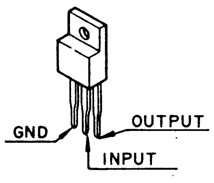
PNP TRANSISTER
2SA608SP(F,G),
etc.



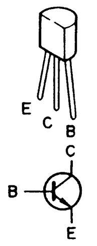
NPN TRANSISTER
2SC536SP(F,G),
etc.


INPUT
OUTPUT
GND

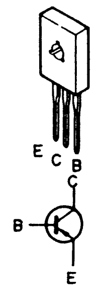
NJM78M06A


GND
OUTPUT
INPUT

NJM78M15A

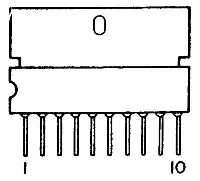


2SC3311(Q,R)



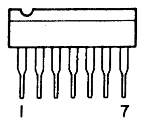
2SB891 (Q,R)

FRONT VIEW



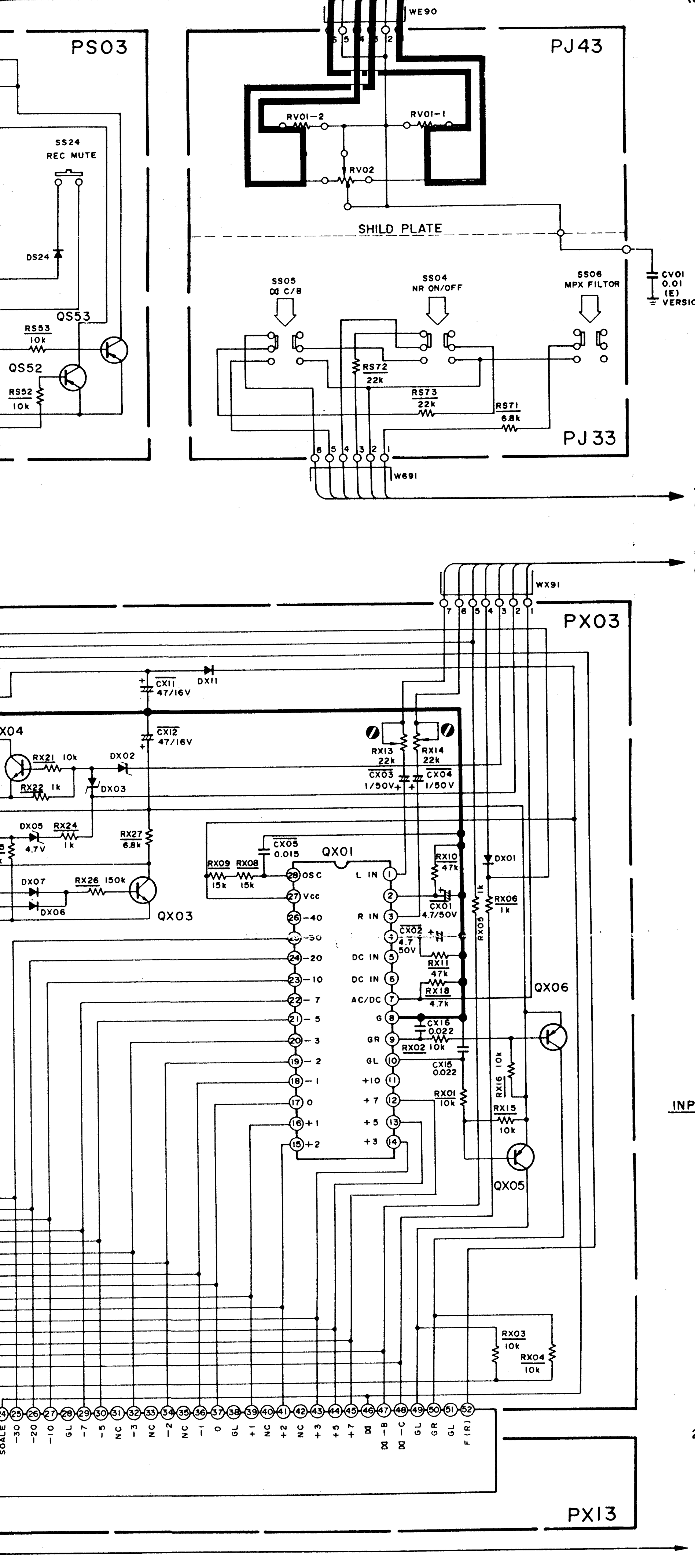
BA6109

SIDE VIEW



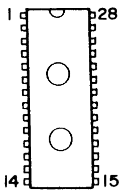
BA222

▬ REC SIGNAL


PS03
PJ43
WE90
RV01-2
RV01-1
RV02
SHILD PLATE
CV01 0.01 (E) VERSION
SS24 REC MUTE
DS24
QS53
RS53 10k
QS52
RS52 10k
SS05 C/B
SS04 NR ON/OFF
SS06 MPX FILTOR
RS72 22k
RS73 22k
RS71 6.8k
PJ33
W691
TO PJ03 (J691)
TO PJ03 (JX91)
WX91
PX03
CX11 47/16V
DX11
CX12 47/16V
X04
RX21 10k
DX02
RX22 1k
DX03
RX13 22k
RX14 22k
CX03 1/50V
CX04 1/50V
DX05
RX24 1k
4.7V
RX27 6.8k
CX05 0.015
QX01
RX09 15k
RX08 15k
OSC
Vcc
L IN
R IN
DC IN
AC/DC
G
GR
GL
RX10 47k
CX01 4.7/50V
CX02 4.7 50V
RX11 47k
RX18 4.7k
CX16 0.022
RX02 10k
CX15 0.022
RX01 10k
RX05 1k
RX06 1k
DX01
DX07
RX26 150k
DX06
QX03
QX06
RX16 10k
RX15 10k
QX05
RX03 10k
RX04 10k
-40
-30
-20
-10
-7
-5
-3
-2
-1
0
+1
+2
+3
+5
+7
+10
SCALE
NC
PX13
TO PJ03 (JJ90)

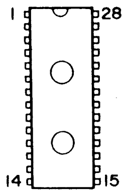
Q071	PHOTO UNIT
QS52,QS53,QU55,QU20 QM82,QU72,QX05,QX06	PNP TRANSISTER
QS54,QU51,QU54,QU56 QU57,QM31～QM34 QU21,QU92～QU94 QM93,QM94,QU62,QU73 QX03,QX04	NPN TRANSISTER
QM01,QM02	2SD1379
QU01	LM640202A
QM81	BA6109
QU71	BA222
Q801	NJM78M06A
Q802	NJM78M15A
Q803	2SB891(Q,R)
QX31	TM4028A
QX32	2SC3311A(Q,R)
QX01	BA6805A
DS21,DS23～DS27,DU65 DS36,DS41,DU52,DU06,DU66 DU11,DU20～DU22,DU96 DU97,DU98,DU71,D810 DX32,DX01,DX06,DX07	1SS133,1SS176,MA165
DY21	SLP981C(RED)
DY23	SLP481C(ORG)
DY41	SLP281F(GRN)
DM01,DM02,D807～D809	1SR35,RL103,DSF10C
DU51,DM31,D812,DX05	4.7V ZENER
DM81	RD4.7JB2
D801～D804	1SR35-200
D811,DX02	14V ZENER
DX03	24V ZENER
DX11	1SR35-200

TOP VIEW



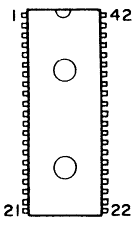
BA6805A

TOP VIEW

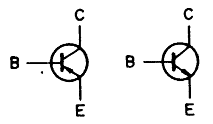


TM4028A

TOP VIEW

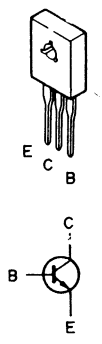


LM640202A

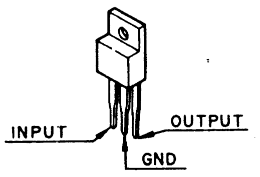


PNP TRANSISTER 2SA608SP(F,G), etc.

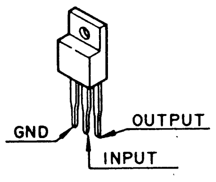
NPN TRANSISTER 2SC536SP(F,G), etc.



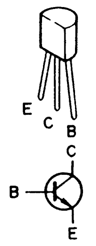
2SD1379


INPUT
OUTPUT
GND

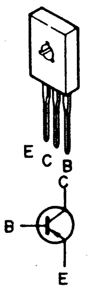
NJM78M06A


GND
OUTPUT
INPUT

NJM78M15A

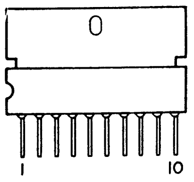


2SC3311(Q,R)



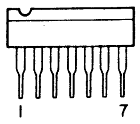
2SB891 (Q,R)

FRONT VIEW



BA6109

SIDE VIEW



BA222

▬ REC SIGNAL

Mara 5494